

APPENDIX A

Hybrid Bus Project

Motiva shall develop and satisfactorily implement a Hybrid Bus Project as follows:

A. Project Description and Funding: Motiva shall purchase hybrid transit buses for the Delaware Transit Corporation ("DTC"), a public instrumentality of the State of Delaware. This Project will reduce the amounts of particulate matter, hydrocarbons, carbon monoxide, and other harmful air pollutants in diesel bus engine exhaust. Motiva shall spend a total of \$2,000,000 to implement this supplemental environmental project ("SEP"). These funds will be used to purchase hybrid transit buses, to perform upkeep and maintenance related to the continued operation of those buses, and to purchase certain equipment, identified below, used in the operation of the hybrid transit buses. The SEP shall be completed by four years after the Effective Date of this Consent Decree, or at another time mutually agreed upon by Motiva, EPA, and DNREC, after EPA and DNREC have consulted with DTC.

B. Project Criteria: The Hybrid Bus Project shall satisfy each of the following criteria:

1. Motiva shall purchase the following items at the following estimated costs pursuant to the schedule outlined in paragraph 2 below:

<u>Equipment</u>	<u>Unit cost (\$)</u>	<u>No.</u>	<u>Total Cost (\$)</u>
Gillig Hybrid Transit Bus (40' low floor model)	544,094	3	1,632,282
Motorola Astro Spectra Two-Way Radios (installed)		3	
and Orbital TMS Complete System (installed)	21,221	3	63,663
Allison EV-40 Drive Unit	100,578	1	100,578
Allison Energy Storage System (ESS)	36,640	1	36,640
Allison Dual Power Inverter Module (DPIM)	43,560	1	43,560
Passenger Seat Inserts	450	5	2,250
Total			1,878,973

2. Purchase Schedule: Motiva shall purchase the items listed above and set aside maintenance costs for the hybrid buses pursuant to the following schedule:

- (a) Within three months after the Effective Date of this Consent Decree ("the Purchase Date"), Motiva shall have contracted to purchase one Gillig hybrid transit bus (40' low floor model) with a Motorola Astro Spectra Two-Way Radio and an Orbital TMS Complete System installed. Within three months after the Effective Date of this Consent Decree, Motiva shall have set aside \$40,000 in an escrow account for maintenance and upkeep of the hybrid transit buses purchased

pursuant to this Consent Decree.

- (b) Within one year after the Purchase Date, Motiva shall have contracted to purchase one Gillig hybrid transit bus (40' low floor model) with a Motorola Astro Spectra Two-Way Radio and an Orbital TMS Complete System installed. Within one year after the Purchase Date, Motiva shall set aside \$30,000 in an escrow account for maintenance and upkeep of the hybrid transit buses purchased pursuant to this Consent Decree.
- (c) Within two years after the Purchase Date, Motiva shall have contracted to purchase one Gillig hybrid transit bus (40' low floor model) with a Motorola Astro Spectra Two-Way Radio and an Orbital TMS Complete System installed. Within two years after the Purchase Date, Motiva shall have purchased one spare Allison EV-40 Drive Unit, one spare Allison Energy Storage System (ESS), one spare Allison Dual Power Inverter Module (DPIM), and five sets of passenger seat inserts. After the purchase of the third bus, the submission of Motiva's Project Completion Report on the Project, and the United States and DNREC's notification that the Project has been satisfactorily completed, Motiva shall set aside in an escrow account for maintenance and upkeep of the hybrid transit buses purchased pursuant to this Consent Decree any of the \$2,000,000 remaining unspent.

3. DTC shall take possession and ownership of the buses after a 30-day inspection period, subject to DTC's right to have any material defects cured and subject to any warranty rights.

4. DTC has committed to maintain and use the hybrid transit buses as provided in the Memorandum of Agreement that is Attachment 1 to this Appendix A.

5. If, within four years from the date of entry of this Consent Decree, Motiva determines that unspent funds will remain following completion of the Project, Motiva may submit a proposal to EPA and DNREC to use the excess funds to increase funding for the Conservation Easement and Land Restoration SEP described in Appendix B, the Delaware River Shellfish Restoration SEP described in Appendix C, the Local Fire Department Emergency Equipment SEP described in Appendix D, or the Refinery Meteorologic Monitoring Station SEP described in Appendix E.

C. Management: Motiva may engage an independent third party contractor to manage and implement the Project, and the cost of such contractor, up to \$ 10,000, shall be an allowed expenditure against the \$2,000,000 committed to the Project. Motiva shall ensure that all costs of such contractor are reasonable and necessary for the completion of the Project.

Attachment 1 to Appendix A to the Motiva Consent Decree

MEMORANDUM OF AGREEMENT

Between and Among the United States of America,
on Behalf of the United States Environmental Protection Agency,
the Department of Natural Resources and Environmental Control,
an Agency of the State of Delaware, and
the Delaware Transit Corporation, a Public Instrumentality of the State of Delaware

INTRODUCTION

The Delaware Transit Corporation, a public benefit corporation of the State of Delaware, Department of Transportation ("DTC") provides public transit services in the State of Delaware.

On July 15, 2002, in the United States District Court for the District of Delaware, the United States, on behalf of the United States Environmental Protection Agency ("U.S. EPA"), and the Department of Natural Resources and Environmental Control ("DNREC"), an Agency of the State of Delaware, filed Complaints against Motiva Enterprises LLC ("Motiva") regarding the refinery then owned and operated by Motiva Enterprises LLC in Delaware City, Delaware. Those Complaints initiated United States v. Motiva, Civil Action No. 02-1292-SLR, and DNREC v. Motiva, Civil Action No. 02-1293-SLR (the "Civil Actions"). On September 2, 2003, the Court granted the United States' and DNREC's motions to file Amended Complaints.

The United States and DNREC expect to file a Consent Decree in the Civil Actions that will resolve the civil claims of the United States and DNREC for the violations alleged in the Amended Complaints.

The United States and DNREC expect that, pursuant to the schedule and other terms set forth in the Consent Decree, Motiva will purchase three hybrid electric-diesel buses for DTC and provide a certain amount of money for the maintenance and operation of the three hybrid electric buses.

In response to the request of the United States, DNREC, and Motiva, DTC agrees to use the hybrid electric-diesel buses that it receives pursuant to the Consent Decree (the "Consent Decree Buses") in accordance with applicable laws and regulations of the Federal Transit Administration ("FTA") and the State of Delaware.

DTC intends to operate the Consent Decree Buses in a manner that is in accordance with applicable laws and regulations of the FTA and the State of Delaware and that will support the Wilmington Metropolitan area DTC fixed route service.

Based on DTC's estimate of maintenance and operation costs, the parties believe it unlikely that DTC will need to seek appropriations from the General Assembly of the State of Delaware to fulfill its obligations hereunder.

USE OF CONSENT DECREE BUSES AND FUNDS

DTC agrees that it shall receive and take possession and ownership of the Consent Decree Buses after a 30-day inspection period, subject to DTC's right to have any material defects cured and subject to any warranty rights.

DTC agrees that it shall maintain and operate the Consent Decree Buses in accordance with FTA requirements.

DTC agrees that it shall operate the Consent Decree Buses as frequently as possible in light of DTC's overall operational needs.

DTC shall not be obligated by this Memorandum of Agreement ("MOA") or Consent Decree to spend money on the operation or maintenance of the Consent Decree Buses if such expenditure would be contrary to state or federal law.

DTC agrees that it shall use any funds provided by Motiva pursuant to the Consent Decree for the maintenance and operations of the Consent Decree Buses. This provision of the Consent Decree shall remain effective until such funds have been exhausted even if this Consent Decree has otherwise been terminated.

Nothing herein shall constitute, nor be deemed to constitute, an obligation of future appropriations by the Delaware General Assembly of the State of Delaware. DTC must obtain an appropriation prior to performance with appropriated funds. A lack of funds to perform any aspect of this MOA due to an insufficient appropriation by the Delaware General Assembly shall not constitute a breach of this MOA. DTC intends to satisfy its obligations hereunder and will seek any necessary appropriations to fulfill such obligations. DTC reasonably believes that funds in amounts sufficient to discharge these obligations can and will lawfully be appropriated and made available for this purpose. In the event the Delaware General Assembly does not provide funds in sufficient amounts to discharge these obligations, DTC shall use reasonable efforts to satisfy its obligations under this MOA from any other source of funds legally available for this purpose.

DTC agrees it will use reasonable efforts to obtain authorization and appropriation of funds adequate to meet in full its obligations under this MOA and Consent Decree. DTC shall provide to U.S. EPA and DNREC copies of all documents relating to such requests for adequate funding. DTC shall also provide U.S. EPA and DNREC on February 1 of each year during the term of the Consent Decree, or until funds provided by Motiva to DTC pursuant to this Consent Decree are exhausted, whichever is later, an accounting of the receipt and expenditure of funds provided by Motiva to DTC pursuant to this Consent Decree during the previous calendar year.

This MOA may be amended with the written approval of U.S. EPA, DNREC, and DTC.

DTC submits to the jurisdiction of the United States District Court for the District of Delaware for the purpose of the enforcement of this MOA.

DTC shall not have any claim or cause of action against the United States, U.S. EPA, any federal agency, any federal employee, DNREC, any state agency, or any state employee if no settlement is reached with Motiva, or if a settlement with Motiva does not result in the purchase of buses for DTC or the provision to DTC of funds for bus maintenance and operations. DTC understands that the Assistant Attorney General for the Environment Division of the U.S. Department of Justice must approve any Consent Decree before it can become effective. Further, DTC understands that public comment will be taken on any Consent Decree and that the United States reserves the right to withdraw or withhold its consent to the Consent Decree until after the United States has considered any public comment.

This agreement is binding on U.S. EPA, DNREC, and DTC and their agents, successors, and assigns.

So Agreed:

8/31/05
Date

STEPHEN KINGSBERRY
Executive Director
Delaware Transit Corporation

So Agreed:

1 SEP 2005

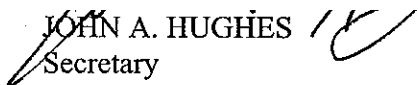
Date

DONALD S. WELSH
Regional Administrator
U.S. Environmental Protection Agency
Region III

DTC-EPA-DNREC Memorandum of Agreement
Attachment 1 to Appendix A to the Motiva Consent Decree

So Agreed:

9-9-05
Date

JOHN A. HUGHES
Secretary
Department of Natural Resources and Environmental
Control

DTC-EPA-DNREC Memorandum of Agreement
Attachment 1 to Appendix A to the Motiva Consent Decree

APPENDIX B

Conservation Easement and Land Restoration Project

Motiva shall implement a Conservation Easement and Land Restoration Project, and Premcor shall grant a conservation easement and provide access to the Conservation Easement Area, as follows:

A. Project Description

Motiva formerly owned and has recently sold to The Premcor Refining Group Inc. ("Premcor") approximately 1,410 acres of land on two tracts south of the Delaware City Refinery (the "Property"), which are identified in the New Castle County Assessment Office as tax parcel #12-002.00-025. This land is bounded on the north by Wrangle Hill Road (Route 72), on the north and east by Route 9, on the south by Cox Neck Road (Rd 411), and on the west by DuPont Highway South (Route 13). Some of the Property is located within an officially designated Delaware State Resource Area that is intended to conserve and protect the Dragon Run Marsh, an ecologically significant wetland area that empties into the Delaware River in the vicinity of the protected heron rookery on Pea Patch Island. The Property includes portions of Dragon Run Marsh, forested riparian buffer zones along the marsh and its tributaries, and upland areas that are leased for agricultural purposes.

Premcor shall grant a conservation easement to the State of Delaware, through DNREC, which shall perpetually restrict the use of 285 upland acres which are currently leased for agricultural use within the Motiva property. This 285-acre area of protected land ("Conservation Easement Area" or "CEA") is identified on the map attached at Attachment 1 to this Appendix, and shall be protected through use restrictions in accordance with the requirements of the Delaware Uniform Conservation Act, 7 Del. C. Ch. 69 (1996). The goal of these restrictions is to eliminate the current agricultural use and prevent further development of the CEA in perpetuity, and to enable the land to grow back to its natural state. The conservation easement, which is attached as Attachment 2 to this Appendix, expressly restricts uses that are incompatible with these ecological goals. Premcor shall record the conservation easement with the deed and provide a copy of the recordation to DNREC and EPA. The recorded conservation easement shall in all material respects conform to the wording of the conservation easement that is Attachment 2 to this Appendix, but shall (i) include in the fourth WHEREAS clause the date on which the Consent Decree was entered as a final judgment of the District Court, and (ii) include the following Exhibits:

- | | |
|-----------|---|
| Exhibit 1 | a current copy of the plat of the Property |
| Exhibit 2 | the deed to the Property |
| Exhibit 3 | the map of the Conservation Easement Area (CEA) (Attachment 1 to this Appendix) |

Exhibit 4 the legal description of the Conservation Easement Area (CEA)
Exhibit 5 this Appendix entitled "Conservation Easement and Land
Restoration Project"

In addition, in order to prevent the propagation of weeds and invasive exotic species such as multi-flora rose and to facilitate revegetation of the CEA with native species, Motiva shall undertake certain restoration activities on the CEA. These activities, which are specified in more detail below, shall generally consist of control of invasive species, planting of a herbaceous cover crop, and planting the CEA with trees of appropriate size and species, and maintenance.

B. Restoration Schedule

Motiva shall spend \$447,500 on restoration activities on the CEA. This allows approximately \$138,000 for tree purchase and planting costs, with the remaining, approximately \$309,500, to be spent on site management. The anticipated annual budget for the five-year term of this Consent Decree and the "reserve" amount, is shown below. At the end of the five year period, any funds remaining in reserve shall be spent on understory plantings or such other restoration activities as shall be agreed to by DNREC, EPA, and Motiva.

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Phase 1					
Planting	\$69,000				
Cover Crop Planting	\$10,000				
Initial Invasive Species Control	\$45,000				
Surveying	\$24,000				
Posting and Signs	\$48,500				
Continuing Invasive Species Control & Maintenance		\$25,000	\$15,000	\$8,000	\$3,500
Phase 2					
Planting		\$69,000			
Initial Invasive Species Control		\$50,000			
Continuing Invasive Species Control & Maintenance			\$30,000	\$15,000	\$10,500
Total Per Year	\$196,500	\$144,000	\$45,000	\$23,000	\$14,000

Reserve: \$25,000

The reserve fund of \$25,000 may be spent at any time by agreement of DNREC, EPA, and Motiva. The initial deer population survey to be performed by Motiva pursuant to Section C.4 below may be paid for out of this reserve fund.

C. Restoration Activities

Motiva's restoration activities on the CEA shall consist of the following activities performed according to the schedule and the budget set forth above:

1. Initial Invasive Species Control. During Phase 1 of the restoration program, Motiva shall use suitable means to suppress weeds and invasive plant species which would otherwise occupy the CEA upon the elimination of farming. Such means will include mowing and spraying of appropriate herbicides to reduce the invasive plant seedbanks that have built up in the soils of the CEA. This phase will also require controlling the mature plants growing in the outer edges of the fields as well as suppression of invasive seedlings in the fields. In the second phase, the focus will shift to controlling invasive seedlings in the fields. A herbaceous cover crop will be seeded in the restoration areas to stabilize soils and establish a non-invasive ground cover.

2. Planting. Motiva shall plant bareroot tree seedlings approximately 1 to 2 feet tall at spacings of approximately 15' x 15' on portions of the CEA until the entire 285 acres has been planted. 196 seedlings per acre shall be planted which will require 55,860 seedlings for the Project. Such planting shall be performed in the early spring or fall of each of the first two years, as the annual budget set forth above permits, and shall be preceded by appropriate mowing of the areas to be planted. Tree tubes, stakes, and mats shall be utilized during planting in order to maximize the survival rate of the plantings. To the extent possible, the seedlings planted shall be of native genetic stock from the region, and should include several of the following species:

<i>Juniperus virginiana</i> var.	red cedar
<i>Diospyros virginiana</i>	persimmon
<i>Quercus alba</i>	white oak
<i>Quercus bicolor</i>	swamp white oak
<i>Quercus falcata</i>	Spanish oak
<i>Quercus palustris</i>	pin oak
<i>Quercus phellos</i>	willow oak
<i>Quercus prinus</i>	chestnut oak
<i>Quercus rubra</i>	northern red oak
<i>Quercus velutina</i>	black oak
<i>Carya alba</i>	mockernut hickory
<i>Carya cordiformis</i>	bitternut hickory
<i>Carya glabra</i>	sweet pignut hickory
<i>Carya ovalis</i>	red hickory

<i>Carya ovata</i>	shagbark hickory
<i>Juglans cinerea</i>	butternut
<i>Juglans nigra</i>	black walnut
<i>Nyssa sylvatica</i>	black gum
<i>Fraxinus americana</i>	white ash
<i>Fraxinus pennsylvanica</i>	green ash
<i>Pinus virginiana</i>	Virginia pine
<i>Platanus occidentalis</i>	sycamore
<i>Amelanchier arborea</i>	downy serviceberry
<i>Populus grandidentata</i>	large-tooth aspen
<i>Ulmus rubra</i>	slippery elm
<i>Celtis occidentalis</i>	hackberry

3. Continuing Invasive Species Control and Maintenance. Motiva shall follow up on its initial invasive species control efforts by using appropriate measures, such as mowing and spot spraying of herbicides, to eliminate weeds and invasive species that grow after initial suppression efforts have been completed.

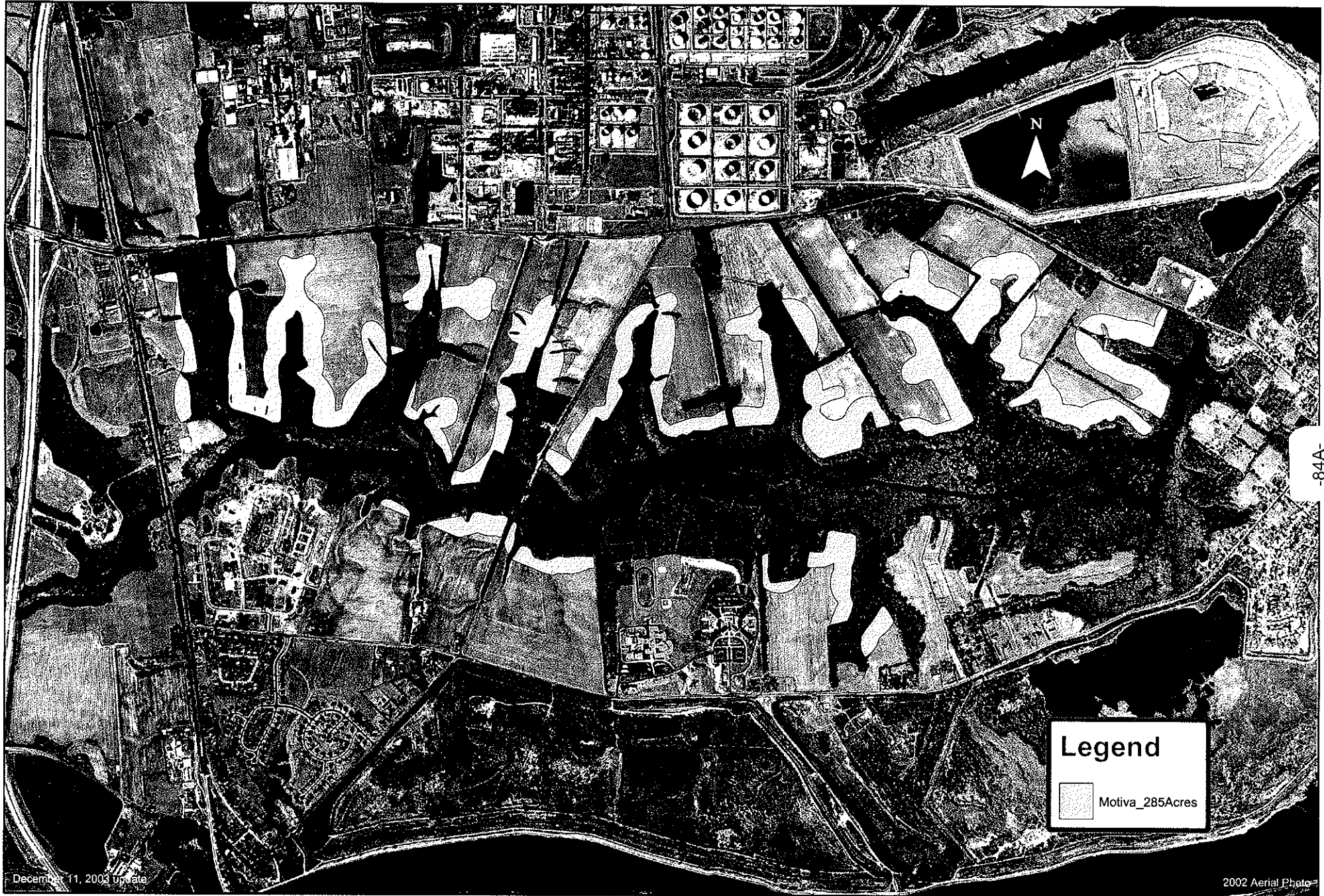
4. Deer Management. As depredations by deer could affect the success of this restoration Project, Motiva shall engage in appropriate deer suppression efforts, ranging from methods such as spraying tree seedlings with deer-repellent chemicals and/or planting seedlings in tubes to methods such as controlled hunts. Motiva shall perform an initial deer population survey and consult with EPA and DNREC concerning the survey results to determine the extent to which deer management will be necessary in order for the restoration Project to succeed. Controlled hunts to suppress deer populations shall be used only as a last resort and only after all other reasonable deer suppression efforts have failed. No controlled hunts shall take place within a year after the Effective Date of this Consent Decree. If, after the first year has passed, the parties agree that controlled hunts are necessary to control deer populations on the CEA, only bow hunting under conditions to be determined by Motiva, in consultation with Premcor, DNREC, and EPA, shall be allowed for controlled hunts on the CEA within the second year after the Effective Date of this Consent Decree. After the second year, if the parties agree that additional measures are necessary to control deer populations, only hunting by bow and by shotgun under conditions to be determined by Motiva, in consultation with Premcor, DNREC, and EPA, shall be allowed for controlled hunts on the CEA.

D. Access

Premcor shall provide access to the CEA to Motiva at all times for the purpose of carrying out the Conservation Easement and Land Restoration Project. Premcor shall provide access to the CEA to DNREC and EPA at all times for the purposes of monitoring the progress of, or participating in, CEA restoration activities.



Attachment 1 to Appendix B of Motiva Consent Decree
Map of Conservation Easement Area
285 Acres Including 100 meter Buffer of Existing Statewide Wetland Mapping (SWMP) and Selected Swales



-84A-

Attachment 2 to Appendix B to Consent Decree

CONSERVATION EASEMENT

THIS GRANT OF A CONSERVATION EASEMENT made this ____ day of _____, 2005 ("Conservation Easement"), by The Premcor Refining Group Inc., its successors and assigns, Party of the First Part, hereinafter referred to as "Grantor," and the State of Delaware, acting by and through the Department of Natural Resources and Environmental Control, Party of the Second Part, hereinafter referred to as "Grantee."

WITNESSETH:

WHEREAS, Grantor is the fee simple owner of approximately 1,410 acres of land on two tracts south of the Delaware City Refinery (the "Property"), which are identified in the New Castle County Assessment Office as tax parcel #12-002.00-025. This approximately 1,410 acres of land is bounded on the north by Wrangle Hill Road (Route 72), on the north and east by Route 9, on the south by Cox Neck Road (Rd 411), and on the west by DuPont Highway South (Route 13). A current copy of the plat of the Property is attached as Exhibit 1 to this Conservation Easement. A current copy of the deed to the Property is attached at Exhibit 2 to this Conservation Easement; and

WHEREAS, Motiva Enterprises, LLC ("Motiva") owned the Property when complaints were filed in the matters captioned United States v. Motiva Enterprises, LLC, Civil Action No. 02-1292-SLR and The Department of Natural Resources and Environmental Control v. Motiva Enterprises, LLC, Civil Action No. 02-1293-SLR (D. Del.) ("the Civil Actions"); and

WHEREAS, Grantor purchased the Property from Motiva on or about May 1, 2004; and

WHEREAS, this instrument is made pursuant to the Consent Decree entered in the Civil Actions on _____, 2005 (the "Consent Decree"), and

WHEREAS, a title search of the Property has revealed no mortgages; and

WHEREAS, said parcel contains an area 285 acres in size referred to as a Conservation Easement Area ("CEA"), which is delineated on the map which is Exhibit 3 to this Conservation Easement and described more particularly on the legal description of the CEA, which is Exhibit 4 to this Conservation Easement; and

WHEREAS, said CEA possesses actual and potential fish, wildlife, and other

natural resource values and scenic, open space, cultural, and aesthetic values (collectively "Conservation Values") worthy of restoration and conservation protection and of great importance to the Grantee, the people of New Castle County, and the people of the State of Delaware; and

WHEREAS, in particular, the CEA adjoins a riparian area consisting of woodlands and wetlands along Dragon Run and its tributaries that Grantee believes provide excellent fish and wildlife habitat; and

WHEREAS, Grantee believes the restoration and preservation of the CEA as open space will yield a significant public benefit; and

WHEREAS, Grantee is desirous of restoring the natural state of the CEA and further desires to conserve and protect the CEA from disruption and/or other occurrences which might interfere with its ability to provide fish and wildlife habitat as well as other Conservation Values; and

WHEREAS, Grantee is desirous of protecting and enhancing the riparian area adjacent to the CEA to protect the fish and wildlife habitat from agricultural or other runoff; and

WHEREAS, Motiva is obligated pursuant to the Consent Decree to expend \$447,500 over a period of five years on activities aimed at restoration of the CEA to a natural state; and

WHEREAS, Grantor hereby, as owner of the CEA, wishes to grant and convey unto Grantee the right to restore, preserve, and protect the Conservation Values of said CEA in perpetuity; and

WHEREAS, Grantee is a department of the State government among whose purposes is the preservation, protection or enhancement of land and water areas, natural, scenic, open, agricultural, cultural, and forested resource values ("Conservation Purposes"); and

WHEREAS, Grantee agrees by accepting this grant to honor the intentions of Grantor stated herein and to preserve and to protect in perpetuity the Conservation Values of the CEA for the benefit of this generation and generations to come:

NOW, THEREFORE, in consideration of the above and the mutual covenants, terms, conditions, and restrictions contained herein, and pursuant to the laws of Delaware and in particular 7 Del. C. Chapter 69, Grantor hereby voluntarily grants and conveys to Grantee a Conservation Easement in perpetuity over all of the CEA, of the nature and character and to the extent hereinafter set forth.

1. PURPOSE

It is the purpose of this Conservation Easement to (1) restore and enhance the CEA to provide and preserve wildlife habitat and to protect and enhance the adjacent riparian area, and (2) assure that the CEA will be retained forever in its natural, scenic, open space, and forested condition, and to prevent any use of the CEA that will significantly impair or interfere with the Conservation Values of the CEA.

2. RESTRICTIONS ON USE

Any activity on or use of the CEA inconsistent with the purpose of the Conservation Easement is prohibited. Without limiting the generality of the foregoing, the following activities and uses are expressly prohibited within the CEA, subject to the express terms and conditions below:

(A) No signs, billboards or outdoor advertising structures shall be placed or maintained on the CEA; except for a reasonable number of signs for resource protection, safety, boundary identification, management, interpretation of natural, cultural, and historic areas, identification of occupant, and for such other purposes as may be permitted with the prior written approval of Grantee.

(B) No improvements, including, but not limited to, buildings, tennis courts, swimming pools, asphalt or concrete pavement, communications tower or antenna, utility line or conduit, parking lot or any other temporary or permanent structure or facility, shall be constructed, or maintained on, under or above the CEA.

(C) No dumping, depositing, abandoning, discharging or releasing of any gaseous, liquid, solid or hazardous wastes, substances, materials or debris of whatever nature on, in, over, or under the ground or into surface or ground water of the CEA shall occur; except as permitted by law.

(D) No loam, peat, gravel, soil, rock, sand, or other material shall be deposited or placed on the CEA, nor shall there be made any change in the general topography of the land within the CEA; except for activities carried out pursuant to the Conservation Easement and Land Restoration Project, Exhibit 5 hereto, and except for Grantee-approved material associated with designated trails.

(E) There shall be no excavation or removal of loam, peat, gravel, soil, rock, sand, or similar material, nor any change in the general topography of the land within the CEA; except for fire management, or management of the riparian zone or wetland and for archaeological digs or excavations authorized by the Delaware Division of Historical and Cultural Affairs with prior written approval of Grantee, and except for activities carried out pursuant to the Conservation Easement and Land Restoration Project, Exhibit 5 hereto.

(F) There shall be no removal or destruction of plants, trees, shrubs, wildflowers or other vegetation living or dead, or animal species except for control of diseases, pests, non-native species, and noxious weeds; for safety purposes; for proper management of species and natural communities; for designated trails; and for activities carried out pursuant to the Conservation Easement and Land Restoration Project, Exhibit 5 hereto.

(G) There shall be no farming, tilling, nor any type of agricultural activity within the CEA. Grantee acknowledges that farming may be conducted up to the boundary of the CEA and on surrounding property. Fencing or other boundary markers, which the Grantee expects to be installed by Motiva, shall be permitted to be constructed to provide a boundary around the CEA.

(H) Intentional introduction of non-native or non-indigenous plant and animal species is prohibited; except for the management of species and natural communities associated with this document with prior written approval of Grantee.

(I) There shall be no collecting of plant material, animals, fossils, minerals, or artifacts, except as authorized by Grantee for scientific and nature study and in accordance with applicable State and Federal laws.

(J) There shall be no application of pesticides, herbicides, insecticides, or other chemicals to the CEA, except as may be reasonably necessary for control of invasive species which threaten the natural character of the area, for control of pestiferous species or for control of human disease-carrying species. If the natural balance of the area is seriously upset, control measures may be employed that are compatible with the maintenance of the natural features, and then only with express written permission of Grantee. Grantee's approval may be withheld only upon a reasonable determination by Grantee that the action as proposed would be inconsistent with the purpose of this Conservation Easement.

(K) No other acts, uses or discharges shall be allowed which adversely affect fish or wildlife habitat or the preservation of land or water areas on the CEA.

(L) Any other use of the CEA or activity which would materially impair the Conservation Values, unless necessary for the protection of the Conservation Values that are the subject of this Conservation Easement, are prohibited.

3. PERMITTED USES

Without limiting the generality of all rights inuring to or reserved by Grantor, Grantor shall be permitted to do any and all of the following, subject to the limitations contained herein:

(A) Grantor may, but has no obligation to, restore and enhance the CEA's natural features or any ecological system, including reforestation with the approval of the Grantee.

(B) Grantee and its representatives shall, with the consent and approval of the Grantor, have the right, but not the obligation, to nominate the CEA to the National Register of Historic Places and enter on to the CEA for the purposes of archaeological investigations authorized by the Delaware Division of Historical and Cultural Affairs. Archaeological artifacts found on the CEA shall remain in possession of Grantor. Said artifacts may, upon consent of Grantor and Grantee, be conserved, studied and/or stored as Grantee or its successor directs.

(C) The CEA may be maintained consistent with the limitations contained herein

4. LIMITATIONS ON THE USE OF CONSERVATION EASEMENT AREA FOR THE PURPOSES OF BUILDING DENSITY REQUIREMENTS

No portion of the CEA may be used to satisfy land area requirements for the calculation of building density under zoning or subdivision laws, regulations, or ordinances for any lands adjacent to the CEA.

5. RESERVED RIGHTS

Grantor reserves to itself, its personal representatives, heirs, successors and assigns, all rights accruing from its ownership of the CEA, including the right to engage in or permit or invite others to engage in all uses of the CEA that are not expressly prohibited herein and are not inconsistent with the purposes of this Conservation Easement. Grantee does not assume any responsibilities, costs, or liabilities of any kind related to the ownership of the land included in the CEA. Grantor assumes no obligation under this Conservation Easement to care for or maintain the CEA, or to enforce the terms of this Conservation Easement except as to its own acts or omissions and those of its agents, employees, representatives, contractors, or invitees. It is expressly acknowledged that responsibilities of the parties and Motiva are further set forth in the Consent Decree. Nothing in this Conservation Easement is intended to supersede, abrogate, or otherwise modify the Consent Decree or any separate agreement between Grantor and Motiva.

6. GRANTOR'S DUTY TO NOTIFY

Grantor, prior to performing or permitting any activity described in this Conservation Easement which requires prior approval of Grantee, except in emergency situations, hereby agrees to submit to Grantee for review and approval, the required information in writing thirty (30) calendar days prior to the date Grantor intends to undertake the activity in question. Grantee shall grant or withhold its approval in writing as soon as practicable, but in all cases, within thirty (30) calendar days of receipt of

Grantor's written request, and Grantee's failure to respond within thirty (30) calendar days shall be deemed an approval. Grantee's approval may be withheld only upon a reasonable determination by Grantee that the action as proposed would be inconsistent with the terms of this Conservation Easement. In the event of an emergency, Grantor shall provide Grantee notice of any activity as soon as reasonably practical.

7. NOTICES

Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and either served personally or sent by first class mail, postage prepaid and addressed as follows:

Grantor: The Premcor Refining Group Inc.
1700 East Putnam, Suite 400
Old Greenwich, CT 06870
Attention: Legal Department

Grantee: Department of Natural Resources & Environmental Control
Division of Parks & Recreation
89 Kings Highway
Dover, Delaware 19901
Attention: Land Preservation Office

Upon written notice from a party, or a successor in interest, to the other party hereto, any such notice, demand or other written communication shall be given to that party or successor at the address indicated in such notice.

8. ENFORCEMENT AND OTHER RIGHTS OF GRANTEE

(A) To accomplish the purpose of this Conservation Easement, the following rights are conveyed to Grantee by this Conservation Easement:

(i) To restore, enhance, preserve, and protect the Conservation Values of the CEA;

(ii) To enter upon the CEA from time to time, for purposes related to this conservation easement, including but not limited to (1) monitoring Grantor's compliance herewith and otherwise enforcing the terms of the Conservation Easement; (2) biological monitoring, (3) controlling invasive species, and (4) monitoring Motiva's implementation of the "Conservation Easement and Land Restoration Project," Exhibit 5 hereto; provided that such entry shall not unreasonably interfere with Grantor's use and quiet enjoyment of the CEA. Before entering the CEA, Grantee shall notify Grantor by signing in with Grantor's security office and otherwise comply with reasonable rules based on the need to comply with requirements imposed by the United States Department of Homeland Security or otherwise necessary for the security of the Refinery.

(iii) To prevent any activity on or use of the CEA that is inconsistent with the purpose of this Conservation Easement and to require the restoration of such areas or features of the CEA that may be damaged by any activity inconsistent with this document, pursuant to this Paragraph.

(B) In the event that a violation of the terms of this Conservation Easement by Grantor comes to the attention of Grantee, Grantee shall give written notice to Grantor of such violation and demand corrective action sufficient to cure the violation and restore the portion of the CEA so injured. If the violation is not cured within thirty (30) calendar days of the receipt of written notice from Grantee, or where the required corrective action cannot be completed within thirty (30) calendar days, Grantor fails to commence such cure within said thirty (30) calendar day period and fails to continue diligently to cure the violation until finally cured, then Grantee may bring an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Conservation Easement, to enjoin the violation, ex parte as necessary, by temporary or permanent injunction, to recover any damages to which it may be entitled for violations of the terms of this Conservation Easement, including damages for the loss of Conservation Values, and to require the restoration of the CEA to its prior condition. Grantor shall not be liable or responsible for the acts or omissions of third parties, including but not limited to Motiva, other than agents, contractors, employees, representatives, or invitees of the Grantor.

(C) In the event that a violation of the terms of this Conservation Easement by a third party comes to the attention of Grantee, Grantee shall give written notice to said third party, with a copy of such notice sent to Grantor, of such violation and demand corrective action sufficient to cure the violation and restore the portion of the CEA so injured. If the violation is not cured by said third party within thirty (30) calendar days of the receipt of written notice from Grantee, or, where the required corrective action cannot be completed within thirty (30) calendar days, said third party fails to commence such cure within said thirty (30) calendar day period and fails to continue diligently to cure the violation until finally cured, Grantee may bring an action at law or in equity in a court of competent jurisdiction against said third party to enforce the terms of this Conservation Easement, to enjoin the violation, ex parte as necessary, by temporary or permanent injunction, to recover any damages to which it may be entitled for violations of the terms of this Conservation Easement, including damages for the loss of Conservation Values, and to require the restoration of the CEA to its prior condition.

(D) If Grantee determines that circumstances require immediate action to prevent or mitigate irreparable harm to the Conservation Values of the CEA, Grantee shall attempt to contact Grantor immediately to notify Grantor of said situation and, upon permission from Grantor, proceed to enforce its rights under this Conservation Easement. If Grantee is unable to contact Grantor after a good faith effort, then Grantee may pursue its rights under this Section (Enforcement and Other Rights of Grantee) and provide

Grantor written justification for such action as soon as possible.

(E) If monetary damages for any violation of the terms of this Conservation Easement are inadequate, Grantor or Grantee shall be entitled to the injunctive relief described in this Section (Enforcement and Other Rights of Grantee), both prohibitive and mandatory, in addition to such other relief to which either party may be entitled, including specific performance of the terms of this Conservation Easement. Actual damages or the inadequacy of otherwise available legal remedies need not be proven for Grantor or Grantee to obtain the relief described in this Paragraph.

(F) All reasonable costs incurred by a party in enforcing the terms of this Conservation Easement, including costs of suit and attorneys fees, and any reasonable costs of restoration necessitated by the violation of this Conservation Easement, shall be borne: (1) in the case of an adjudication, by the person determined by a court of competent jurisdiction to have violated this Conservation Easement, and in the amount as determined by said court; or (2) in the case of a settlement prior to an adjudication by a court, as agreed to by the parties at the time of settlement of any claim of violation of this Conservation Easement.

(G) Grantor's and Grantee's rights under this Section (Enforcement and Other Rights of Grantee) apply equally in the event of either actual or threatened violations of the terms of this Conservation Easement.

(H) Nothing contained herein shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the CEA resulting from causes beyond Grantor's control including, without limitation, fire, flood, storm, and earth movement, or from prudent action taken by Grantor under emergency conditions to prevent, abate or mitigate significant injury to the CEA resulting from such causes.

9. LIMITATIONS ON PUBLIC ACCESS

The grant of this Conservation Easement in no way grants the general public the right to enter any portion of the CEA for any purpose; except for such activities as may be mutually permitted by Grantor and Grantee and determined by both of them to be consistent with the purposes of this document.

10. MODIFICATION

This grant is made by Grantor with the understanding that the Conservation Purposes for which it is given may be protected or furthered notwithstanding the possibility that circumstances may arise that would justify modification of certain specific terms of this Conservation Easement. To that end, Grantor and Grantee may agree in writing to modify the terms of this Conservation Easement to the extent that such modification furthers or does not have an adverse effect on the Conservation Values to be protected by this grant, subject to any procedural requirements imposed upon Grantor or

Grantee by law. Any such amendment or modification to this Conservation Easement shall be recorded in the official records of the county in which the CEA is located.

11. EXTINGUISHMENT

If circumstances arise in the future such as to render the purpose of this Conservation Easement impossible to accomplish, this Conservation Easement may be terminated according to the laws of the State of Delaware. Grantor agrees that the grant of this Conservation Easement gives rise to a property right, immediately vested in Grantee. If the Conservation Easement is taken, in whole or in part, by exercise of the power of eminent domain or other action, Grantee, as well as Grantor, shall be entitled to compensation in accordance with applicable law. Grantee shall use its share of any net proceeds recovered in compensation for the taking of the conservation easement for the protection or acquisition of interests in land for Conservation Purposes, which are exemplified by this grant.

12. TRANSFER OF GRANTOR'S INTEREST

Grantor agrees to record this Conservation Easement with the appropriate office in New Castle County, Delaware. Grantor further agrees to give written notice to Grantee of the transfer of any interest in the CEA upon the date of such transfer.

13. TRANSFER OF GRANTEE'S INTEREST

(A) Grantee shall not transfer this Conservation Easement unless Grantee, as a condition of the transfer, requires that the transferee continue to carry out the Conservation Purposes of this Conservation Easement.

(B) All transfers of this Conservation Easement shall be restricted to organizations qualifying, at the time of transfer, as an eligible grantee under paragraph (c)(1) of Treasury Regulation Section 1.170A-14, as amended and replaced from time to time.

(C) Grantee shall give written notice to Grantor of the transfer of any interest at least thirty (30) calendar days prior to the date of such transfer. The failure of Grantee to perform this condition shall not impair the validity of this Conservation Easement or limit its enforceability in any way.

14. GRANTEE'S DISCRETION

Enforcement of the terms of this Conservation Easement shall be at the discretion of Grantee, and any forbearance by Grantee to exercise its rights under this Conservation Easement in the event of any breach of any term of this Conservation Easement by Grantor shall not be deemed or construed to be a waiver by Grantee of such terms or of any subsequent breach of the same or any other terms of this Easement or of any of Grantee's rights under this Easement. No delay or omission by Grantee in the exercise of any right or remedy upon any breach by Grantor shall impair such right or remedy or be

construed as a waiver.

15. ACKNOWLEDGMENTS

Grantor attests that it is the owner of the CEA and that, to Grantor's knowledge, the CEA is not subject to a mortgage as of this date, or if the CEA is subject to a mortgage then a release of lien and mortgage subordination has been signed and acknowledged prior to approval of this document.

16. DURATION OF EASEMENT

The parties agree that this Conservation Easement shall run with the land in perpetuity (except if extinguished pursuant to Section 11(Extinguishment) hereof) and is binding upon all subsequent owners of the CEA, their heirs, executors, administrators, successors, devisees, and assigns, as the case may be, and is binding upon Grantee's successors and assigns.

17. INTERPRETATION OF EASEMENT

This Conservation Easement shall be construed in favor of the grant to effect the purpose of the Conservation Easement and the policy and purpose of 7 Del. C. Chapter 69.

18. RECORDATION

This instrument shall be recorded in a timely fashion in the official records of the county in which the CEA is located.

19. SEVERABILITY

If any provision of this Conservation Easement, or the application thereof to any person or circumstance, is found to be invalid, the remainder of the provisions of this Conservation Easement, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid, as the case may be, shall not be affected thereby.

20. NO FORFEITURE

Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

21. TERMINATION OF RIGHTS AND OBLIGATIONS

A party's rights and obligations under this Conservation Easement terminate upon transfer of the party's interest in the Conservation Easement or CEA, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

22. BINDING EFFECT

This conservation Easement and all the rights, duties, obligations and liabilities hereunder shall be a "covenant running with the land" and shall be binding upon the CEA

and all successive owners of the CEA (unless extinguished pursuant to Section 11 (Extinguishment) hereof) provided, however, that if the Grantor should transfer ownership or any interest in this CEA (whether legal, equitable or beneficial) then the Grantor shall be released from all further duties, obligations and liabilities hereunder and the Grantor's successor in title (or other interest) shall assume all of Grantor's duties obligations and liabilities hereunder.

23. CAPTIONS

The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

24. COUNTERPARTS

This instrument may be executed in one or more counterparts, which, when executed and taken together, shall be deemed to be a complete and integrated document.

TO HAVE AND TO HOLD unto Grantee, its successors and assigns forever.

IN WITNESS WHEREOF, Grantor and Grantee have set their Hands and Seals the day and year above first written.

WITNESS

[name of official with authority to bind co.]
[title]
THE PREMCOR REFINING GROUP INC.

WITNESS

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL
JOHN A. HUGHES
SECRETARY

STATE OF DELAWARE)
)SS.
COUNTY _____)

BE IT REMEMBERED, that on this ____ day of _____, 2005, personally came before me, the Subscriber, a Notary Public in and for the State and County aforesaid, _____, party to this Instrument, known to me personally to be such, and acknowledged this Indenture to be his/her act and deed and the act and deed of the Corporation.

GIVEN under my Hand and Seal of Office, the day and year aforesaid.

Notary Public

STATE OF DELAWARE)
)SS.
COUNTY OF KENT)

BE IT REMEMBERED, that on this ____ day of _____, 2005, personally came before me, the Subscriber, a Notary Public in and for the State and County aforesaid _____, on behalf of the Department of Natural Resources and Environmental Control, party to this Instrument, known to me personally to be such, and acknowledged this Indenture to be his act and deed and the act and deed of said Department.

GIVEN under my Hand and Seal of Office, the day and year aforesaid.

Notary Public

APPENDIX C

Delaware River Shellfish Restoration Project

Motiva shall implement the Delaware River Shellfish Restoration Project required by Section VI of this Consent Decree in accordance with the following objectives and requirements.

A. Objectives

The objectives of the Project include the introduction into the Delaware River of certain shellfish species in an attempt to: (1) assess the efficacy of shellfish introduction methods and the contribution of shellfish beds to fish and crab nursery habitats; and (2) improve water quality as the shellfish remove microscopic particles by pumping large quantities of water over their gills.

B. Management of Project

To implement this Project, Motiva shall contract with a competent third-party scientific organization with experience in the creation of shellfish habitat. Such organization shall be subject to the approval of EPA. Motiva shall not prevent or in any way inhibit publication of analyses of the results of the Project in a peer-reviewed scientific journal.

C. Project Description

Motiva or its contractor shall construct in the Delaware River near the Delaware City Refinery habitat for shellfish species that are, or were, native to the Delaware River and then introduce the shellfish species to the habitat to create shellfish beds.

D. Project Elements and Schedule

First Four Months.

1. No later than four months after the Effective Date, Motiva shall submit to EPA for approval by EPA pursuant to Paragraphs 66 - 70 of this Decree the names of one or more shellfish species to be used in the Project. The species must be, or have been, native to the Delaware River.

First Year. No later than one year after the Effective Date of this Consent Decree, Motiva shall have:

2. Reviewed shellfish beds in the vicinity of the Delaware City Refinery on

lands under the jurisdiction of the State of New Jersey and conducted field inspection of possible sites for new shellfish beds, gathering, inter alia, information on the anticipated hydroperiod, vegetation coverage and type, species suitability, and flow-way geometry.

3. Applied for and obtained any permits required for the Project, such as, for example, permits for collecting and transporting shellfish.
4. Submitted to EPA for approval by EPA pursuant to Paragraphs 66 - 70 of this Decree a Statement of Work (SOW) for this Project, which shall include, inter alia:
 - a. the locations for, and the number of, shellfish beds to be established;
 - b. the design of the shellfish habitat, including the development of criteria to measure such Project accomplishments as larval production, survivorship, spatial density, growth rates, adult survivorship, and baywater filtration rates;
 - c. the schedule for the construction of the shellfish beds and the placement of the shellfish.;
 - d. the design and schedule for monitoring sediments, the fishery, and water quality, and for the periodic sampling and testing of shellfish to evaluate physiological health of the organisms; and
 - e. the budget for the Project, in a total amount of \$550,000 in Eligible Project Costs. If at any time during the performance of the Project it becomes known that remaining funds are insufficient to complete all of the tasks listed above and below, then EPA and Motiva shall reasonably agree on modifications to those tasks so as to be able to complete them with the remaining funds

Second Year. By two years after EPA's approval of the SOW, Motiva shall have:

5. Constructed and established shellfish beds at the locations specified in the approved SOW.

Third Year. No later than three years after EPA's approval of the SOW, Motiva shall have:

6. Commenced the periodic testing and monitoring of sediments, the fishery, and water quality; and
7. Commenced the periodic sampling and testing of the shellfish to evaluate physiological health of the organisms.

Fifth Year. No later than five years after the Effective Date of this Consent Decree, Motiva shall have:

8. Submitted to EPA for approval by EPA pursuant to Paragraphs 66 - 70 of this Decree the final report on the Project and the Project Completion Report required by Paragraph 54 of this Consent Decree. The final report, which may be combined in one document with the Project Completion Report, shall provide an analysis and detailed description of the procedures utilized to construct the shellfish beds and rear the shellfish species, and shall include in database format all raw data generated by the Project.
9. Submitted to EPA for approval by EPA pursuant to Paragraphs 66 - 70 of this Decree pamphlets and/or other educational materials describing the Project for distribution at local youth science fairs and similar educational venues.

E. Permits

Where any compliance obligation under this Appendix C (Delaware River Shellfish Restoration Project) requires Motiva to obtain a federal, state, or local permit or approval, Motiva shall submit timely and complete applications and fully respond to all requests for follow-up information. Motiva may seek relief under the provisions of Section X of the main body of the Consent Decree (Dispute Resolution) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if Motiva has submitted timely and complete applications and has fully responded to all requests for follow-up information.

APPENDIX D

Delaware City Fire Company Emergency Equipment Acquisition Project

Description of Project:

The Delaware City Fire Company, No. 1, Inc. ("DCFC") is a volunteer fire department located in Delaware City, Delaware. The DCFC routinely responds to high risk, high hazard situations that are dangerous to human life and health, and provides fire and emergency response to all facilities located in and around Delaware City, including Motiva's formerly-owned Delaware City Refinery. Motiva has agreed to purchase certain types of emergency response equipment that the DCFC would otherwise not acquire due to its high cost.

Proposed Expenditures:

Motiva will spend \$165,000 on emergency equipment for the DCFC. Subject to that funding limit, Motiva will purchase the equipment listed below and will donate it to the DCFC. The DCFC concurs with the specifications and the estimated costs listed below. If at any time it becomes clear that all of the equipment listed cannot be purchased without exceeding \$165,000, or if it appears that different equipment would be more useful to the DCFC, then Motiva, EPA, and DNREC, after consultation with the DCFC, shall agree on a modified list of equipment to be purchased.

\$33,876	12 Motorola XTS-2500 Portable 800 MHz Radios (each set including speaker microphone, battery, and charger)
\$95,000	Ford 550 or 650 series Quick Response Vehicle (for handling specialized equipment needed for responding to incidents at local manufacturing facilities)
\$8,000	4 Akron Brass Mercury Quick Attack Monitor Portable Deluge System (for mounting on quick response vehicle)
<u>\$28,124</u>	Assorted Technical Rescue Equipment (to be identified by DCFC)
\$165,000	Total Cost

Project Schedule:

Motiva shall complete the acquisition of the above equipment no later than six months after the Effective Date of the Consent Decree. Motiva shall include copies of receipts, invoices, or other documentation of expenditures for this Project with the Project Completion Report required by Paragraph 54 of this Consent Decree.

APPENDIX E

Refinery Meteorologic Station Project

Description of Project:

Motiva will construct a meteorologic station at a location in the vicinity of Motiva's formerly-owned Delaware City Refinery to be determined in consultation with EPA and DNREC. At present there is no such station in the area. In addition to the normal commercial and other purposes that will be satisfied by collection of basic meteorological data by this station, the availability of such data will assist in the evaluation of public safety and health concerns in the event that extraordinary releases of hazardous air or liquid emissions occur from the refinery in the future. After construction of the station has been completed and the station has begun functioning, DNREC will assume ownership and operation of the station. Motiva will also pay a portion of the operation and maintenance costs of the air monitoring station for a period of four years as outlined below. Motiva's total expenditure for this Project shall be \$550,000 in Eligible Project Costs.

Proposed Expenditures:

A. Capital Costs

Within 90 days of the Effective Date of this Consent Decree, Motiva shall develop the specifications and capital cost budget for a meteorologic station. The components listed below shall be used by Motiva as a guide. If all of the components cannot be purchased and installed for a total capital cost of \$226,750, then DNREC, EPA, and Motiva shall reasonably agree to use operating funds to complete the purchase and installation of the components, and shall reasonably agree on a modified operating schedule accordingly.

	Item	Estimated Cost
1.	Shelter (8x8x16)	\$25,000
2.	Meteorology (100 meter) 4 levels (2, 10, 65, 100 meters) Horizontal WS, WD @ 10, 65, 100 meters Vertical WS @ 10 and 100 meters Temperature @ 2, 10, 65, 100 meters RH @ 2 meters SLR @ 2 meters Precip @ ground All wired to a Campbell CR10 logger	\$23,000

3.	Tower Systems 100-meter tower with 3 elevators and wired for meteorology	\$78,750
4.	SODAR for measurements for WS, WD data up to 450 meters	\$100,000
		<hr/>
	Total	\$226,750

B. Operating Costs

Motiva shall contribute \$6,735 per month for 48 months toward the operating cost of the meteorologic station. If at any time during the 48 months it becomes known that the remaining funds are insufficient to allow continued operation of the meteorologic station for the remainder of the period, then DNREC, EPA, and Motiva shall reasonably agree on modifications to the station or its operations to be able to operate for the full period or agree to cease operations when funds run out.

Project Schedule:

Motiva shall complete construction of the meteorologic station no later than six months after DNREC, EPA, and Motiva have reasonably agreed on the specific design, and the components of the station. Motiva shall thereupon make the payments to DNREC in contribution to the operation and maintenance of the meteorologic station as outlined above on a schedule to be determined in consultation with DNREC.

APPENDIX F

Delaware River Monitoring Project

Motiva shall implement a Delaware River Monitoring Project in accordance with the following criteria.

Project Description:

Motiva shall engage a qualified contractor approved by DNREC to install and operate for a period of five years a water quality monitoring station off Pea Patch Island in the Delaware River near the Delaware City Refinery. This Project will eliminate the significant gap in water quality monitoring in the Delaware River which exists due to the lack of a monitoring station in this area. There is currently no monitoring station on the Delaware which generates a full complement of water quality data south of Marcus Hook, Pennsylvania. A monitoring station in the Pea Patch Island area will provide data on a critical stretch of the river in the vicinity of significant industrial point source discharges as well as the Salem nuclear generating station.

The water quality monitoring station shall be equipped to collect the full suite of analytes typically collected at United States Geological Survey water quality monitoring stations, but especially dissolved oxygen, temperature, pH, and conductivity. The station shall be additionally equipped to measure sulfate and chlorophyll. The station shall be equipped to take readings every 15 - 30 minutes.

The exact location of the water quality monitoring station and the equipment in its construction shall be selected in consultation with DNREC.

Proposed Expenditures:

Motiva shall expend \$250,000 in Eligible Project Costs on the Project, approximately \$50,000 per year for five years. If at any time during the five years it becomes known that the remaining funds are insufficient to allow continued operation for the remainder of the period, then the DNREC and Motiva shall reasonably agree on modifications to the station or its operations to be able to conduct monitoring for the full period or agree to cease operations when funds run out.

Project Schedule:

Motiva shall complete construction and commence operation of the water quality monitoring station by whichever of the following dates is later: (i) one year after the Effective Date of the Consent Decree; or (ii) nine months following final selection of the location and equipment for construction of the station.

APPENDIX G

ENVIRONMENTAL MANAGEMENT SYSTEM

Environmental Management System ("EMS")

1. Initial EMS Review. Within thirty (30) days after the Effective Date of this Decree, Premcor shall provide to EPA and DNREC, in writing, a notification with information concerning the person(s) or organization(s) identified by Premcor (the "Proposed EMS Initial Reviewer(s)") to perform an evaluation (commonly called a "gap analysis") of any environmental management practices existing at the Delaware City Refinery (the "Initial Review and Evaluation"). The notification shall include: (a) the name, affiliation, and address of the Proposed EMS Initial Reviewers; (b) information demonstrating how the Proposed EMS Initial Reviewers' qualifications satisfy or meet the criteria identified in Table 1 of ISO 19011 (First edition, 2002-10-01) for EMS auditors, provided however that the EMS Initial Reviewers need not be certified pursuant to ISO 19011 or any other standard; (c) information demonstrating that the Proposed EMS Initial Reviewers, in composite, have a working process knowledge of the Delaware City Refinery or similar operations and have a working knowledge of federal and state environmental requirements which apply to the Delaware City Refinery; and (d) evidence that the Proposed Initial Reviewers have at least a bachelor's degree from an accredited institution. The written notification submitted by Premcor pursuant to this Paragraph shall also identify the schedule, including milestones, for conducting the Initial Review and Evaluation.

2. EPA and DNREC shall notify Premcor whether the Proposed EMS Initial Reviewers are qualified to perform the Initial Review and Evaluation relative to the standards set forth in the previous Paragraph. If EPA and DNREC disapprove of Premcor's selection of the Proposed EMS Initial Reviewer, then Premcor shall submit to EPA and DNREC the identity of different Proposed EMS Initial Reviewers within thirty (30) days of Premcor's receipt of EPA's and DNREC's determination. Both Premcor's initial proposal and EPA and DNREC's review of any different Proposed EMS Initial Reviewers shall be governed by Paragraphs 1 and 2 of this Appendix until such time as EPA and DNREC notify Premcor that these initial EMS Initial Reviewers are qualified to conduct the Initial Review and Evaluation. If, at any time after EPA and DNREC notification regarding acceptance of the initial EMS Initial Reviewers, Premcor wishes to replace or add one or more EMS Initial Reviewers for any reason, Premcor shall notify the EPA and DNREC in writing, provide an explanation for the change or addition, and identify the substitute Proposed EMS Initial Reviewer(s). Premcor's proposal to substitute for or add one or more EMS Initial Reviewer(s) must include the information identified in Paragraph 1 of this Appendix and shall be governed by this Paragraph 2 of this Appendix.

3. Premcor shall direct the qualified EMS Initial Reviewers to conduct the Initial Review and Evaluation for the operations of the Delaware City Refinery, including operations performed by contractors. The Initial Review and Evaluation shall evaluate the current environmental management practices at the Delaware City Refinery relative to the twelve (12) provisions set forth in Appendix H, as

well as any other EMS standards or criteria deemed appropriate by Premcor. The purpose of the Initial Review and Evaluation shall be to identify areas where existing management systems or subsystems should be enhanced, or new management systems or subsystems developed, to adequately address the twelve provisions set forth in Appendix H. Premcor shall require the EMS Initial Reviewers to prepare a report of the results of the Initial Review and Evaluation and provide such report to Premcor within 90 days of the date that EPA and DNREC notified Premcor that the initial EMS Initial Reviewers are qualified to conduct the Initial Review and Evaluation. This report shall also be provided by Premcor to EPA and DNREC, upon request.

4. Comprehensive EMS.

a. Within sixty (60) days after the Effective Date of this Decree, Premcor shall provide to EPA and DNREC, in writing, a notification with information concerning the person(s) or organization(s) identified by Premcor (the "Proposed EMS Consultant(s)") to assist Premcor in developing a comprehensive environmental management system for the Delaware City Refinery (the "Comprehensive EMS") pursuant to Subparagraph 4.c, below. The notification shall include: (a) the name, affiliation, and address of the Proposed EMS Consultants; (b) information demonstrating how the Proposed EMS Consultants' qualifications satisfy or meet the criteria identified in Table 1 of ISO 19011 (First edition, 2002-10-01) for EMS auditors, provided however that the EMS Consultants need not be certified pursuant to ISO 19011 or any other standard; (c) information demonstrating that the Proposed EMS Consultants have experience in developing and implementing EMSs; (d) information demonstrating that

the Proposed EMS Consultants, in composite, have a working process knowledge of the Delaware City Refinery or similar operations and have a working knowledge of federal and state environmental requirements which apply to the Delaware City Refinery; and (e) evidence that the Proposed EMS Consultants have at least a bachelor's degree from an accredited institution.

b. EPA and DNREC shall notify Premcor whether the Proposed EMS Consultants are qualified to assist Premcor in developing the Comprehensive EMS relative to the standards set forth in the previous Paragraph. If EPA and DNREC disapprove of Premcor's selection of the Proposed EMS Consultants then Premcor shall submit to EPA and DNREC the identity of different Proposed EMS Consultants within thirty (30) days of Premcor's receipt of EPA's and DNREC's determination. Both Premcor's initial proposal and EPA and DNREC's review of any different Proposed EMS Consultants shall be governed by Subparagraphs 4.a and 4.b of this Appendix until such time as EPA and DNREC notify Premcor that these initial EMS Consultants are qualified to conduct the Initial Review and Evaluation. If, at any time after EPA and DNREC notification regarding acceptance of the initial EMS Consultants, Premcor wishes to replace or add one or more EMS Consultants for any reason, Premcor shall notify the EPA and DNREC in writing, provide an explanation for the change or addition, and identify the substitute Proposed EMS Consultant(s). Premcor's proposal to substitute for or add one or more EMS Consultant(s) must include the information identified in Subparagraph 4.a of this Appendix and shall be governed by this Subparagraph 4.b of this Appendix.

c. Based on the Initial Review and Evaluation and other information, Premcor, with the assistance of the EMS Consultants approved pursuant to Subparagraphs 4.a and b, above, shall develop the Comprehensive EMS addressing the twelve (12) provisions set forth in Appendix H, as well as any other EMS standards or criteria deemed appropriate by Premcor. The purpose of the Comprehensive EMS is to assist Premcor in its efforts to comply with federal, state, and local environmental statutes, regulations, permits, orders, and enforceable agreements, as well as to improve environmental performance.

5. Element Five of the Comprehensive EMS. Within nine (9) months after EPA and DNREC first notify Premcor that Proposed EMS Consultants are qualified to develop the Comprehensive EMS, Premcor shall submit to EPA and DNREC for review and approval, pursuant to Paragraph 66 of this Decree, a comprehensive Operations Assessment, Prevention, and Control Program that shall address all the items identified in Element 5 of Appendix H, and any other information deemed appropriate by Premcor, and shall include a schedule for implementation. A security plan approved by the U.S. Coast Guard pursuant to 33 C.F.R. Part 105 shall be deemed to substantially address all parts of Element 5 of Appendix H regarding "deliberate malfeasance."

6. EPA and DNREC shall approve the Operations Assessment, Prevention and Control Program Plan if it substantially addresses the requirements of Paragraph 5, above. Within thirty (30) days following EPA and DNREC approval, Premcor shall commence implementation of the Operations Assessment, Prevention, and Control Program Plan in accordance with the schedule contained therein.

7. EMS Manual. Within fifteen (15) months of the date that EPA and DNREC notified Premcor that the EMS Consultant(s) are qualified to develop the Comprehensive EMS pursuant to Paragraph 4 of this Appendix, Premcor shall submit to the United States and DNREC for review and approval, pursuant to Paragraph 66 of this Decree, an "Environmental Management System Manual" ("EMS Manual") that shall describe and document the Comprehensive EMS, and include an implementation schedule for any system or subsystem described in the Comprehensive EMS that has not already been fully implemented. The EMS Manual shall describe or contain, as appropriate, overarching policies, procedures, and programs that compose the facility-wide EMS framework and that incorporate the provisions of Elements 1 through 4 and Elements 6 through 12 of Appendix H. The EMS Manual shall also incorporate the approved Operations Assessment, Prevention, and Control Program Plan (regarding Element 5 of Appendix H), submitted pursuant to Paragraph 5 of this Appendix.

8. EPA and DNREC shall approve the EMS Manual if it substantially addresses the items identified within Elements 1-4 and Elements 6-12 of Appendix H. Subsequent to EPA's and DNREC's initial approval of the EMS Manual, Premcor may revise and/or update the EMS Manual for the Delaware City Refinery. Substantial revisions or updates to the EMS Manual made by Premcor before the EMS Audit required by Paragraph 16 below, shall be submitted to EPA and DNREC for review and approval. Upon approval by EPA and DNREC, the changes shall be incorporated into the EMS Manual. The EMS Manual as approved pursuant to this Paragraph shall be used during the EMS Audit as further described in Paragraphs 10-22, below.

9. Upon Premcor's receipt of EPA's and DNREC's approval, Premcor shall commence implementation of the EMS Manual in accordance with any implementation schedule contained therein. Subsequent to receiving EPA's and DNREC's approval of the EMS Manual, Premcor shall include, within the semiannual status reports submitted pursuant to Paragraph 61.c of this Consent Decree, a report of the status of Premcor's implementation of any system or subsystem identified within the EMS Manual as not fully implemented.

10. EMS Audit. Within one year of EPA's and DNREC's approval of the EMS Manual, Premcor shall propose to EPA and DNREC an independent person or organization (the "Proposed EMS Auditor") to audit Premcor's EMS implementation. The Proposed EMS Auditor may have been the EMS Initial Reviewer, but must (a) not have been involved in the development of the Comprehensive EMS; (b) satisfy or meet the qualifications identified in Table 1 of ISO 19011 (First edition, 2002-10-01), provided that the Proposed EMS Auditor need not be certified pursuant to ISO 19011 or any other standard, (c) have expertise and competence in regulatory programs under federal and state environmental laws, and (d) have at least a bachelor's degree from an accredited institution. In addition, the Proposed EMS Auditor must be capable of exercising independent judgment and discipline in performing an EMS Audit at the Delaware City Refinery, as described in Paragraph 14, below. The EMS Auditor must have no direct financial stake in the outcome of the EMS Audit conducted pursuant to this Consent Decree. If Premcor or any parent or subsidiary of Premcor has or had any other contractual or financial relationship with the Proposed EMS Auditor, Premcor shall

disclose to EPA and DNREC such past or present contractual or financial relationship when the Proposed EMS Auditor(s) is identified. (In the preceding sentence, "Premcor or a parent or subsidiary of Premcor" shall not encompass entities that form joint-ventures with Premcor or a parent or subsidiary of Premcor.)

11. EPA and DNREC shall notify Premcor whether the Proposed EMS Auditor meets the qualifications set forth in the previous Paragraph. If EPA and DNREC disapprove Premcor's selection of such Proposed EMS Auditor, then Premcor shall propose another Proposed EMS Auditor to EPA and DNREC within thirty (30) days of Premcor's receipt of EPA's and DNREC's determination. Both Premcor's initial proposal and EPA and DNREC's review of any different Proposed EMS Auditor shall be governed by Paragraphs 10 and 11 of this Appendix until such time as EPA and DNREC notify Premcor that Proposed EMS Auditor(s) are qualified to conduct the EMS Audit.

12. Within ten (10) business days of the date that EPA and DNREC notify Premcor of the approval of the Proposed EMS Auditor, Premcor shall retain the Proposed EMS Auditor, thereafter designated the "EMS Auditor," to perform an EMS Audit of Premcor's Delaware City Refinery as further described in Paragraph 14 below.

13. If, at any time, Premcor wishes to replace the EMS Auditor for any reason, Premcor shall notify the United States and DNREC in writing, provide an explanation for the change and identify a substitute Proposed EMS Auditor. Premcor's proposal to substitute for the EMS Auditor must address the criteria specified in Paragraph 10 of this Appendix and shall be subject to the EPA and DNREC review and approval process described in Paragraph 11.

14. Premcor shall require the EMS Auditor to submit, within two (2) months after EPA's and DNREC's notification that the EMS Auditor is qualified to conduct the EMS Audit, a proposed plan for performance of the EMS Audit (the "EMS Audit Plan") to Premcor, the United States, and DNREC for review and approval. The audit criteria shall include the provisions set forth in Appendix H, the EMS Manual approved pursuant to Paragraph 8 of this Appendix, above, and any other EMS standards or criteria deemed appropriate by Premcor. The EMS Audit Plan shall provide for an evaluation of the adequacy of EMS implementation relative to the audit criteria, from top management down, throughout each major organizational unit at the Delaware City Refinery, and to identify areas of concern. The EMS Audit Plan shall provide that the audit will be conducted in a manner consistent with ISO 19011 (First edition, 2002-10-01) and with the provisions of Paragraph 16, below.

15. EPA and DNREC shall approve the EMS Audit Plan if it substantially addresses the elements of Paragraph 14.

16. Within sixty (60) days after Premcor's receipt of EPA's and DNREC's approval of the EMS Audit Plan, Premcor shall require the EMS Auditor to initiate the EMS Audit in accordance with the approved EMS Audit Plan. In the context of assessing Premcor's conformance with the criteria specified in Paragraph 14, above, the EMS Audit shall address the following:

- a. Whether there is a defined system, subsystem, program, or planned task for the respective EMS element;
- b. To what extent the system, subsystem, program, or task has been

implemented, and is being maintained;

c. The adequacy of each operation's internal self-assessment procedures for programs and tasks composing the EMS;

d. Whether Premcor is effectively communicating environmental requirements to affected parts of the organization, contractors, and on-site service providers;

e. Whether further improvements should be made to the EMS to conform to the provisions of Appendix H to this Consent Decree;

f. Whether there are observed deviations from Premcor's written requirements or procedures; and

g. Whether continual improvement is occurring.

17. Representatives from Premcor, EPA, and DNREC may participate in the EMS Audit as observers, but may not interfere with the independent judgement of the EMS Auditor. Premcor shall notify EPA and DNREC at least ten (10) days before the commencement of the on-site portion of the EMS Audit.

18. EMS Audit Report. Premcor shall direct the EMS Auditor to develop and submit simultaneously to Premcor, DNREC, and EPA an EMS Audit Report on the EMS Audit within sixty (60) days following the completion of the on-site portion of the EMS Audit. The EMS Audit Report shall present the audit findings and shall contain the following information:

a. The audit's scope, including the period of time covered by the audit;

b. The date(s) the on-site portion of the audit was conducted;

- c. The identification of audit team members;
- d. The identification of Premcor representatives and regulatory agency personnel observing the audit;
- e. The distribution for the EMS Audit Report;
- f. A summary of the audit process, including any obstacles encountered;
- g. Detailed audit findings, including the basis for each finding and each area of concern identified;
- h. Identification of any audit findings corrected, or areas of concern addressed, during the audit and a description of the corrective measures and when they were implemented; and,
- i. Certification by the EMS Auditor that the EMS Audit was conducted in accordance with the provisions of the approved EMS Audit Plan and Paragraphs 16 and 17 of this Appendix.

19. If the EMS Auditor believes that additional time is needed to analyze available information or to gather additional information, then the EMS Auditor, or Premcor on behalf of the EMS Auditor, may request that EPA and DNREC grant the EMS Auditor such additional time as needed to prepare and submit the EMS Audit Report.

20. Follow-Up Corrective Measures: Audit Response and Action Plan. Upon receiving the EMS Audit Report, Premcor shall review and evaluate the identified audit findings and determine any need for conducting root cause analyses, and shall investigate all areas of concern. Within sixty (60) days of receiving the EMS Audit

Report, Premcor shall develop and submit to EPA and DNREC, for review and comment, a response to the EMS Audit Report (the "Audit Response and Action Plan"). The Audit Response and Action Plan shall provide a response to the findings and areas of concern identified in the EMS Audit Report. To the extent that Premcor determines, based on its review of the EMS Audit Report, that appropriate actions or measures should be implemented to achieve substantial conformance of the Delaware City Refinery with the EMS Manual and the provisions set forth in Appendix H and with any other EMS standards or criteria deemed appropriate by Premcor, then Premcor shall include in the Audit Response and Action Plan an action plan for expeditiously implementing those appropriate actions or measures. The Audit Response and Action Plan shall include the result of any root cause analysis, specific deliverables, responsibility assignments, and an implementation schedule for the identified actions and measures, including those that may have already been completed.

21. Final Audit Response and Action Plan. EPA and DNREC will provide their comments on the Audit Response and Action Plan and Premcor shall, within thirty (30) days of receipt of EPA's and DNREC's comments on the Audit Response and Action Plan, submit to the United States and DNREC a Final Audit Response and Action Plan and implement the Plan in accordance with the schedule contained therein.

22. Following submittal and until completion of the actions or measures described in the Final Audit Response and Action Plan, Premcor shall include, within the semiannual status reports submitted pursuant to Paragraph 61.c of the Consent

Decree, a report of the status of Premcor's conduct of any actions or measures identified within the Final Audit Response and Action Plan.

General Provisions

23. The United States and DNREC retain all authority and reserve all rights to take any and all actions authorized by law to address any violations of Environmental Requirements discovered as a result of the steps taken pursuant to this Appendix G, including the implementation of the EMS (as in existence prior to this Consent Decree or as modified in accordance with this Appendix) that have not been addressed pursuant to Section VIII of the main text of this Consent Decree (Stipulated Penalties).

24. No submission made to the United States or DNREC and no action taken by Premcor pursuant to this Appendix shall be interpreted as a waiver or limitation of the United States' or DNREC's authority to enforce any federal, state, or local statute, regulation, permit, or order. Nothing in this Appendix shall prevent Premcor from taking any appropriate action necessary to respond to or address any such noncompliance, consistent with applicable federal, state, or local statutes, regulations, permits, or orders.

25. Stipulated Penalties for Late Submissions. Premcor shall be liable for stipulated penalties for any failure (whether its own or that of the EMS Reviewer, the EMS Auditor, or the Compliance Auditor) to timely submit the documents required by this Appendix in accordance with the schedule set out in Paragraph 74 of Section VIII of the main text of this Consent Decree (Stipulated Penalties).

APPENDIX H

ENVIRONMENTAL MANAGEMENT SYSTEM MANUAL KEY PROVISIONS

1. Environmental Policy

- a. This policy, upon which the environmental management system ("EMS") is based, must clearly communicate management commitment to achieving compliance with applicable federal, state, and local environmental statutes, rules, regulations, permits, orders, and enforceable agreements (hereafter, "Environmental Requirements"), minimizing risks to the environment from unplanned contaminant releases, and continual improvement in environmental performance. The policy should also state management's intent to provide adequate personnel and other resources for the EMS.

2. Organization, Personnel, and Oversight of EMS

- a. Describes, organizationally, how the EMS is implemented and maintained.
- b. Includes organization charts that identify units, line management, and other individuals having environmental performance, risk reduction, and regulatory compliance responsibilities.
- c. Identifies and defines specific duties, roles, responsibilities, and authorities of key environmental program personnel in implementing and sustaining the EMS (e.g., could include position descriptions and performance standards for all environmental department personnel, and excerpts for others having specific environmental program and regulatory compliance responsibilities).
- d. Includes ongoing means of communicating environmental issues and information to all organization personnel, on-site service providers, and contractors, and for receiving and addressing their concerns.

3. Accountability and Responsibility

- a. Specifies accountability and environmental responsibilities of organization's managers, on-site service providers, and contractors for environmental protection and risk reduction measures, assuring compliance, required reporting to regulatory agencies, and corrective actions implemented in their area(s) of responsibility.
- b. Describes incentive programs for managers and employees to perform in

accordance with compliance policies, standards, and procedures.

- c. Describes potential consequences for departure from specified operating procedures, including liability for civil/administrative penalties imposed as a result of noncompliance.

4. Environmental Requirements

- a. Describes process for identifying, interpreting, and effectively communicating Environmental Requirements to affected organization personnel, on-site service providers, and contractors, and then ensuring that Delaware City Refinery activities conform to those requirements (i.e., ongoing compliance monitoring). Specifies procedures for prospectively identifying and obtaining information about changes and proposed changes in Environmental Requirements, and incorporating changes in Environmental Requirements into the EMS (i.e., regulatory "change management").
- b. Establishes and describes processes to ensure communication with regulatory agencies regarding Environmental Requirements and regulatory compliance.

5. Operations Assessment, Prevention, and Control Program

The Operations Assessment, Prevention, and Control Program Plan shall describe:

- a. An assessment process, including an implementation schedule and significant milestones, to identify operations and waste streams where equipment malfunctions and deterioration, operator errors, or deliberate malfeasance have caused, may be causing, or may lead to: (1) releases of hazardous substances, hazardous wastes, or pollutants to the environment, (2) threats to human health or the environment, or (3) violations of Environmental Requirements. The plan shall also describe a process for identifying appropriate monitoring and measurements to ensure operating equipment is in good condition and to ensure compliance;
- b. How the results of the assessment carried out pursuant to Subparagraph a, above, will be used to identify operations and activities where documented standard operating practices (SOPs) are needed to prevent potential violations or unplanned releases of hazardous substances, hazardous wastes, or pollutants, and define a uniform process for developing, approving, and implementing any needed SOPs;

- c. How the results of the assessment carried out pursuant to Subparagraph a, above, will provide input to a system for conducting and documenting routine, objective self-inspections by department supervisors and trained staff to check for malfunctions, deterioration, worker adherence to SOPs, unusual situations, and unauthorized releases;
- d. A process for ensuring input of Environmental Requirements or concerns regarding potential operator errors in planning, design, and operation of ongoing, new, and/or changing buildings, processes, equipment, maintenance activities, and products (i.e., "management of change");
- e. A training program for all appropriate employees on how to recognize unsafe conditions, unsafe operations, and waste streams where equipment malfunctions and deterioration, operator errors, or deliberate malfeasance may be causing or may lead to: (1) releases of hazardous substances, hazardous wastes, or pollutants to the environment, (2) threats to human health or the environment, or (3) violations of Environmental Requirements. The training program shall provide for refresher training on these topics at least every three years.
- f. All related guidance and subordinate procedures that directly compose the Operations Assessment, Prevention, and Control Program;
- g. How the Operations Assessment, Prevention, and Control Program requirements will be reinforced in the workplace in order to maintain increased employee and contractor awareness and involvement in meeting the requirements of the ongoing Program; and
- h. At least an annual evaluation of the Operations Assessment, Prevention, and Control Program and related training, and how Premcor will incorporate the results of the annual evaluation into program improvements.

6. Environmental Incident and Noncompliance Investigations

- a. Describes standard procedures and requirements for internal and external reporting of instances of noncompliance and release incidents.
- b. Establishes procedures for investigation and prompt and appropriate correction of instances of noncompliance. As and to the extent appropriate, the investigation process may include root cause analysis of identified problems to aid in developing the corrective actions.

- c. Describes a system for development, tracking, and effectiveness verification of corrective and preventative actions.
- d. Each of these procedures shall specify self-testing of such procedures, where practicable and appropriate.

7. Environmental Training, Awareness, and Competence

- a. Identifies specific education and training required for organization personnel, as well as process for documenting training provided.
- b. Describes program to ensure that appropriate organization employees are aware of relevant environmental policies and procedures, Environmental Requirements, and such employees' roles and responsibilities within the EMS.
- c. Describes program for ensuring that personnel responsible for meeting and maintaining compliance with Environmental Requirements are competent on the basis of appropriate education, training, and/or experience.

8. Environmental Planning and Organizational Decision-Making

- a. Describes how environmental planning will be integrated into organizational decision-making, including plans and decisions on capital improvements, product and process design, training programs, and maintenance activities.
- b. Requires establishing written targets, objectives, and action plans by at least each operating organizational subunit with environmental responsibilities, as appropriate, including those for contractor operations conducted at the Delaware City Refinery, and how specified actions will be tracked and progress reported. Targets and objectives must include actions which reduce the risk of noncompliance with Environmental Requirements and minimize the potential for unanticipated releases.

9. Maintenance of Records and Documentation

- a. Identifies the types of records developed in support of the EMS (including audits and reviews), who maintains them and where, appropriate security measures to prevent their unauthorized disclosure, and protocols for responding to inquiries and requests for release of information.
- b. Specifies the data management systems for any internal waste tracking,

environmental data, and hazardous waste determinations.

- c. Specifies document control procedures.

10. Pollution Prevention Program

- a. Describes an internal program for preventing, reducing, recycling, reusing, and minimizing waste and emissions, including procedures to encourage material substitutions. Also includes mechanisms for identifying candidate materials to be addressed by program and tracking progress.

11. Continuing Program Evaluation and Improvement

- a. Describes program for periodic (at least annual) evaluation of selected EMS components, including incorporating the results of the assessment into program improvements, revisions to the EMS Manual, and communicating any new findings and action plans to affected employees, on-site service providers, and contractors. The program shall provide for an evaluation of all EMS components over a three-year period.
- b. Describes a program for periodic audits (at least annual) of Delaware City Refinery compliance with selected Environmental Requirements by an independent auditor. The program shall provide for a compliance evaluation of all Environmental Requirements over a three-year period. Audit results shall be reported to upper management and instances of noncompliance shall be addressed through the process described in Element 6, above. The independent auditor carrying out the audits required by this Subparagraph may be an employee of Premcor, but may not be stationed at, or report to, the Refinery Manager or subordinates of the Refinery Manager at the Delaware City Refinery.

12. Public Involvement/Community Outreach

- a. Describes a program for ongoing community education and involvement in the environmental aspects of the organization's operations and general environmental awareness.

APPENDIX I

Tank Inspection Guidelines

These Tank Inspection Guidelines, including the attached flowchart (Figure 1-1), describe a system for addressing mechanical integrity, fitness for service, and metallurgical and/or materials issues arising from any internal or external inspection of storage tanks located at the Delaware City Refinery.

Requirements

Premcor's process for issuing all tank integrity reports ("IRs") or maintenance requests ("MRs") shall conform to these Tank Inspection Guidelines, including the attached flow chart.

The Fixed Equipment Department ("FED") Inspector shall review all mechanical integrity issues arising from any internal or external inspection of storage tanks, including fitness for service review ("FFS"), failure trends, and metallurgical or materials issues, with an engineer in the reliability support group (the reliability support group engineer, "RSE") prior to completing the IR or MR, and shall follow the appropriate steps shown in the attached Figure. The FED Inspector shall note the results of such engineering review in the IR or MR.

IRs and MRs shall include Inspector's name, date, equipment and/or line number, service, condition, recommendations with completion dates and assigned group(s), and any required follow-up inspection(s). The condition of the equipment includes all pressure-containing components and internal and/or external inspections, as applicable. Any calculations, as needed, and related attachments or links, possibly including isometric sketches, drawings, ultrasonic thickness ("UT") readings, digital photos, nondestructive examination ("NDE") reports, all as appropriate, shall be included in the IR, electronic database, document management system, or hard copy. IRs shall contain inspection interval setting and the basis for the interval as applicable (i.e., half-life calculations, applicable requirements, API Standards, etc.). The inspection schedules shall be maintained in the electronic database. All IR and MR recommendations and their completion dates shall be entered into the electronic tracking system by the document Control Coordinator, assigned to the responsible person (the person responsible for ensuring that the recommended work is completed) per the current distribution list and communicated per an electronic database task list update.

All inspection reports shall be reviewed and approved by the FED Supervisor or other qualified Inspectors as approved by the FED Supervisor. In no case shall an Inspector approve his or her own reports. Calculations shall be reviewed by the RSE, as appropriate, and the Inspector shall note any such review on the report.

DELAWARE CITY REFINERY
FIXED EQUIPMENT DEPARTMENT

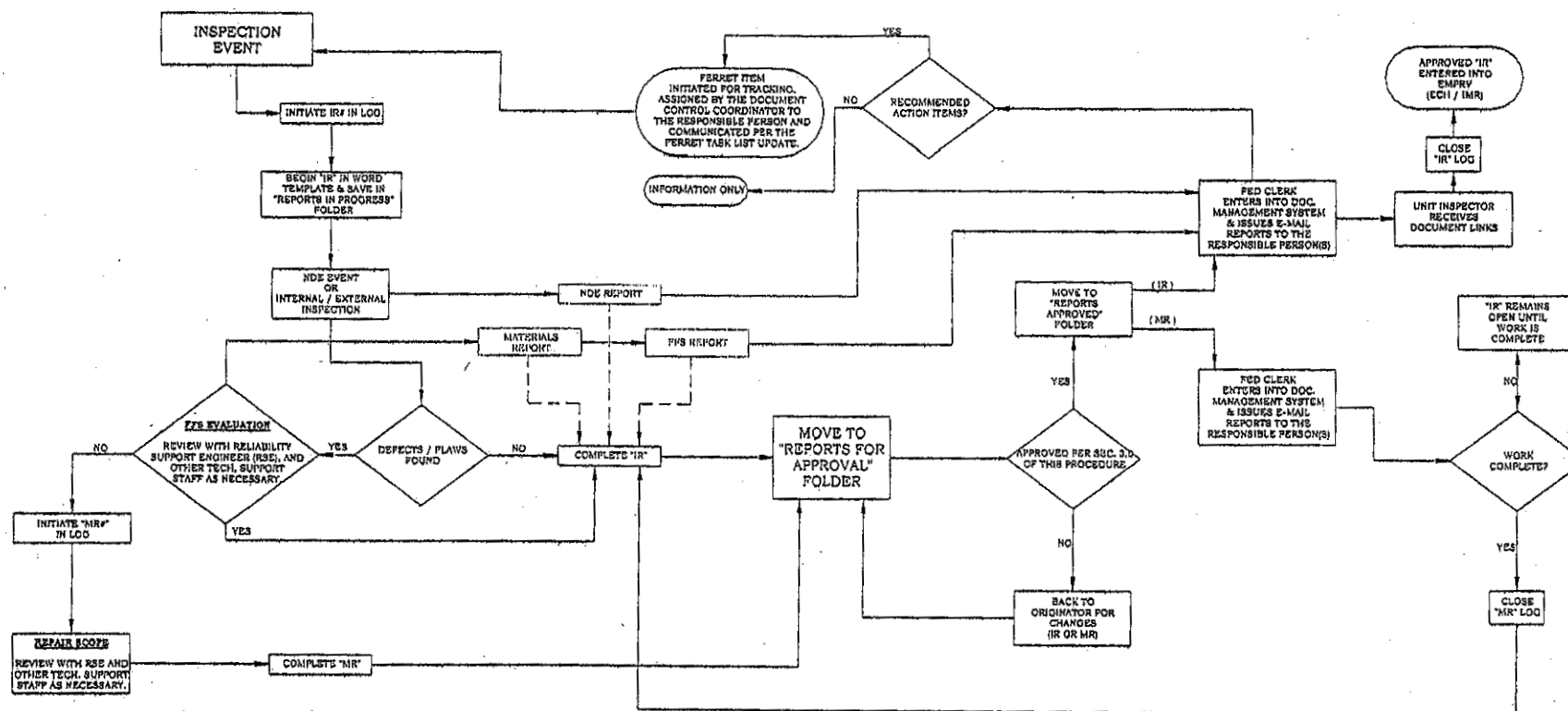


FIGURE 1-1

APPENDIX J

Primary Elements of Unsafe Condition Reporting Program

If a Premcor employee or contractor working at the Delaware City Refinery ("DCR") recognizes an unsafe condition ("UC"), the employee or contractor is required to take actions necessary to eliminate or mitigate the condition or hazard, if such actions can be safely performed, or to report the UC if he or she cannot resolve the hazard. Notification of a UC may also come from other sources, such as the Medical Department or Safety Department in response to an injury or complaint.

The following elements generally compose the process within operating areas at the DCR for reporting, mitigating, tracking, and resolving UCs:

1. When an UC is encountered, the person who recognizes the UC is required to take necessary action, to the extent appropriate and safe, to mitigate or resolve the UC.
2. If the person recognizing the hazard achieves mitigation but not resolution of the UC, or otherwise cannot render the UC safe, the person must then make a written report of the UC (the "UC Report") to the Shift Team Leader for that area of the Refinery (the "STL"), or in the case of a contractor, to the contractor's appropriate Premcor contact. The Premcor contact shall be responsible for ensuring that a UC Report is submitted to the STL.
3. The STL then is responsible for implementing any action necessary to prohibit access to the area of the UC, secure the area or process, or otherwise make safe the area of the UC.
4. The STL shall ensure the preparation of a Safety Work Order for any work necessary to eliminate or permanently mitigate the hazard.
5. In addition, except in circumstances where the UC has been permanently mitigated, upon receiving the UC Report, the STL shall have the information regarding the UC entered into an electronic database for tracking the UC and any recommended actions through to completion. The database can be used by any member of the Safety Department or other Management Team member to generate a real-time summary of outstanding UCs. Further, once the UC has been entered into the database:
 - a. all DCR employees will have access to the electronic database to

review the status of any reported UC hazard; and

- b. the Safety Department shall review the electronic database each business day.
6. The Safety Department or any other Management Team member may determine that a reported UC warrants the assignment of an investigation team.
7. At each daily morning operations meeting, each new UC Report shall be discussed for the purpose of alerting other DCR employees of the UC or hazard.
8. The Joint Health and Safety Committee ("JHSC") will review a current summary of UCs during the monthly JHSC meeting. Notes of any discussions during the JHSC meeting concerning a UC shall be recorded and included in the database entries for the relevant UC.
9. When it deems necessary, the JHSC will recommend to the Operations Manager any other action to be taken to eliminate or mitigate the UC hazard. Such recommendations shall also be included as entries for the UC within the database.
10. The Area Supervisor for the area in which the UC was identified shall be responsible for tracking the UC and ensuring its prompt and appropriate correction.
11. The STL shall be responsible for verifying that the work, when completed, has eliminated or permanently mitigated the UC or hazard.

APPENDIX K

Premcor Material Safety Data Sheet (MSDS) for Spent Acid

Material Safety Data Sheet

Product: SPENT SULFURIC ACID (FOR INTERNAL HANDLING ONLY. SEE SEPERATE MSDS FOR
SPENT SULFURIC ACID TRANSPORTED OFFSITE.)
HAZMIN #: 33485 MSDS Number: 2736

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Company Data
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Current Company: The Premcor Refining Group Inc.
1700 East Putnam Avenue
Old Greenwich, CT 06780
Information phone: 618-255-5100
Emergency phone: 800-424-9300

Manufacturer/Supplier: The Premcor Refining Group Inc.
1700 East Putnam Avenue
Suite 500
Old Greenwich, CT 06780
Information phone: 618-255-5100
Emergency phone: 800-424-9300

=====
Product Data
=====

Synonym:
SPENT SULFURIC ACID - IN PLANT, NOT FOR TRANSPORTATION PURPOSES

MSDS Prepared: 04-Oct-2004 Revised: 04-Oct-2004

=====
Physical and Chemical Data
=====

Boiling Point: GT 212 F
Specific Gravity: BET 1.7 and 1.8 (Water=1)
Vapor Density: No Data
Melt/Freeze Point: No Data
pH: BET 1 and 2
% Volatile: EQ 50.0 V
Vapor Pressure: LT 1 @ mm Hg
Solubility in Water: Completely Miscible
Appearance/Odor: Gray Liquid / Sour, acrid odor / Bulk
Density: 14.58 lbs/gal
Physical State: Liquid
Hazard Rating - NFPA MFG. Rating:
Health = 3, Flam. = 3, Reactivity = 2, Other = Water Reactive
Target Organs according to MSDS:
LIVER
REPRODUCTIVE SYSTEM
KIDNEYS
LUNGS

=====

Fire and DOT Data

=====

Flash Point Closed: See Text
Auto Ignition: No Data
LEL/LFL: Aqueous solution (see text)
UEL/UFL: Aqueous solution (see text)
OSHA Flam. Class: Flammable liquid

UN Number: 1832
DOT Class: 8
PK Group: II
Proper Shipping Name: Sulfuric Acid, Spent

=====

Component Data

=====

SULFURIC ACID

Percent: BET 84 and 90
CAS No: 7664-93-9
EPCRA 313 Chemical: Yes
OSHA(PEL) TWA: 1 mg/m3
ACGIH(TLV) TWA: 1 mg/m3
ACGIH STEL: 3 mg/m3
Limit note: NIOSH IDLH: 15 mg/m3

PETROLEUM HYDROCARBONS

Note: (Unknown Composition) / CAS#: None
Percent: BET 5 and 10
OSHA(PEL) TWA: 0.2 mg/m3
ACGIH(TLV) TWA: 0.2 mg/m3
Limit note: PEL & TLV: Coal Tar Pitch Volatiles as Benzene Soluble (see text)

SULFUR DIOXIDE

Note: %: Variable
Percent: LT 1
CAS No: 7446-09-5
OSHA(PEL) TWA: 5 ppm
ACGIH(TLV) TWA: 2 ppm
ACGIH STEL: 5 ppm
Limit note: NIOSH IDLH: 100 ppm

SOLIDS

Note: CAS#: None
Percent: BET 3 and 4
Limit note: EXPOSURE GUIDELINE: Not Established

WATER

Percent: BET 3 and 4
CAS No: 7732-18-5
Limit note: EXPOSURE GUIDELINE: Not Established

=====1.
CHEMICAL PRODUCT AND COMPANY IDENTIFICATION
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PRODUCT NAME: Spent Sulfuric Acid (For internal handling only. See
Separate MSDS for Spent Sulfuric Acid transported offsite.)

PRODUCT CODE: None

SYNONYMS:

Spent Alkylation Acid

Spent Sulfuric Acid - In plant, Not for transportation purposes

CHEMICAL FAMILY: Inorganic Acid

EMERGENCY OVERVIEW:

24 HOUR EMERGENCY TELEPHONE NUMBERS:

SPILL, LEAK, FIRE OR ACCIDENT:

NORTH AMERICA: 800-424-9300

OTHERS: 703-527-3887 (Collect)

HEALTH HAZARDS: May cause severe burns. May be harmful or fatal if inhaled. Harmful if swallowed. A component causes severe respiratory irritation. Overexposure to a component may cause damage to the lungs. Use ventilation adequate to keep exposure below recommended limits, if any. Do not breathe vapor or mist. Do not get in eyes, on skin or on clothing. Do not taste or swallow. Wash thoroughly after handling. Wear appropriate personal protective equipment.

PHYSICAL HAZARDS: Reacts violently with water and organic materials with evolution of heat. Liquid will not burn readily, but flammable vapors may be present. Keep away from all sources of ignition. Avoid contact with water. Avoid contact with clothing and other combustible material.

PHYSICAL FORM: Liquid

APPEARANCE: Gray

ODOR: Sour, acrid

NFPA HAZARD CLASS:

HEALTH: 3 (High)

FLAMMABILITY: 3 (High) (Hydrocarbon vapors, if present)

REACTIVITY: 2 (Moderate)

OTHER: W (Water Reactive)

ISSUE DATE: 10/04/2004

MANUFACTURER/SUPPLIER:

The Premcor Refining Group Inc.

1700 East Putnam Avenue
Old Greenwich, CT 06780

EMERGENCY PHONE: 800-424-9300
INFORMATION PHONE: 618-255-5100

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2. COMPOSITION/INFORMATION ON INGREDIENTS

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SEE COMPONENT PAGE(S) FOR ADDITIONAL INFORMATION.

HAZARDOUS COMPONENTS

EXPOSURE GUIDELINE

Sulfuric Acid

Petroleum Hydrocarbons (Unknown Composition (See: Oil Mist, If
Generated)
(See: Coal Tar Pitch Volatiles as Benzene Solubles)

Sulfur Dioxide

REFERENCE

EXPOSURE GUIDELINES

LIMITS	AGENCY	TYPE
--------	--------	------

Coal Tar Pitch Volatiles as Benzene	0.2 mg/m3	ACGIH	TWA
Solubles	0.2 mg/m3	OSHA	TWA
CAS# 65996-93-2	80 mg/m3	NIOSH	

IDLH

Oil Mist, If Generated	5 mg/m3	ACGIH	TWA
CAS# None	10 mg/m3	ACGIH	STEL
	5 mg/m3	OSHA	TWA
	2500 mg/m3	NIOSH	IDLH

NOTE: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

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3. HAZARDS INFORMATION

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POTENTIAL HEALTH EFFECTS:

EYE: Corrosive. Contact may cause severe irritation, eye burns, and permanent eye damage.

SKIN: Corrosive. Contact may cause severe irritation, skin burns, and permanent skin damage. No information regarding skin absorption, however, corrosivity of material suggests significant skin absorption will occur.

INHALATION (BREATHING): Corrosive and highly toxic. May be harmful or fatal if inhaled. May cause severe irritation and burns of the nose, throat, and respiratory tract.

INGESTION (SWALLOWING): Corrosive and toxic. Harmful if swallowed. May cause severe irritation and burns of the mouth, throat, and digestive tract.

SIGNS AND SYMPTOMS: Effects of overexposure may include severe irritation and burns of the mouth, nose, throat, respiratory, and digestive tract, headaches, coughing, sneezing, nausea, vomiting, diarrhea, wheezing, abdominal pain, breathing difficulties, chest pain, laryngitis, pneumonitis (inflammation of the lungs), pulmonary edema (accumulation of fluids in the lungs) and perforation of the stomach.

CANCER: Inadequate evidence available to evaluate the cancer hazard of this material. See Section 11 for carcinogenicity information of individual components, if any.

TARGET ORGANS: No data available for this material. Overexposure to a component may cause injury to the lungs (see Section 11).

DEVELOPMENTAL: No data available for this material. A component is a potential hazard to the fetus (see Section 11).

OTHER COMMENTS: This material contains petroleum hydrocarbons of unknown composition. As a general class, petroleum hydrocarbons are only mildly irritating to the skin and eyes and have low acute toxicity. Symptoms of overexposure may include irritation of the respiratory and digestive tract, vomiting, diarrhea, and signs of nervous system depression (e.g., headache, dizziness, drowsiness, loss of coordination, and fatigue). Catalytic and thermocracked distillates can be more irritating and toxic (See Section 11).

Prolonged or repeated overexposure to acid mists has been reported to cause erosion of tooth enamel.

PRE-EXISTING MEDICAL CONDITIONS: Conditions aggravated by exposure may include skin disorders, eye disorders and respiratory (asthma-like) disorders.

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4. FIRST AID MEASURES

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EYE: Immediately move victim away from exposure and into fresh air. If irritation or redness develops, flush eyes with clean water and seek immediate medical attention. For direct contact, immediately hold eyelids apart and flush the affected eye(s) with clean water for at least 30 minutes. Seek immediate medical attention.

SKIN: Immediately flush affected area(s) with large amounts of water while removing contaminated shoes, clothing, and constrictive jewelry. If skin surface is damaged, apply a clean dressing and seek immediate medical attention. If skin surface is not damaged, cleanse the affected area(s) thoroughly by washing with mild soap and water. If irritation or redness develops, seek immediate medical attention.

INHALATION (BREATHING): Immediately move victim away from exposure and into fresh air. If respiratory symptoms or other symptoms of exposure develop, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

INGESTION (SWALLOWING): ***Do not induce vomiting. Corrosive material. Acid burns. *** If victim has any breathing difficulties, call for emergency help immediately. If victim is conscious and alert, immediately rinse mouth with water and dilute the ingested material by giving one glass of milk or water to drink; 1/2 glass to children under 5. Call a physician or poison center. If possible, do not leave victim unattended.

NOTE TO PHYSICIANS: This material is corrosive and may cause acid burns, including gastroesophageal perforation. Late complications of severe acids burns include esophageal, gastric, or pyloric strictures and stenosis.

The possibility of sulfur dioxide exposure should be considered when evaluating respiratory symptoms associated with the inhalation of this material.

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5. FIRE FIGHTING MEASURES

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FLAMMABLE PROPERTIES:

FLASH POINT: Material will not burn readily, but during storage and transport may contain a small amount of hydrocarbon vapors with a flash point of less than 100°F

OSHA FLAMMABILITY CLASS: Flammable liquid

LEL/UEL%: Aqueous solution, may release flammable gases

AUTOIGNITION TEMPERATURE: No Data

UNUSUAL FIRE & EXPLOSION HAZARDS: Liquid will not burn readily, but flammable vapors may be present. Vapors are heavier than air and can accumulate in low areas. If container is not properly cooled, it can rupture in the heat of a fire. Contact with common metals can generate hydrogen, which can form flammable mixtures with air.

EXTINGUISHING MEDIA: Dry chemical, soda ash, lime, or sand is recommended. Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may cause frothing of materials heated above 212°F. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Do not use water.

FIRE FIGHTING INSTRUCTIONS: Hazardous combustion/decomposition product may be released by this material when exposed to heat or fire. Use caution and wear protective clothing, including respiratory protection. For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Water reactive. Contact with water can generate heat. Isolate immediate hazard area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk.

Avoid using water for fire fighting. Avoid spreading burning liquid with water used for cooling purposes.

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6. ACCIDENTAL RELEASE MEASURES

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Liquid will not burn readily, but flammable vapors may be present. Keep all sources of ignition away from spill/release. Water reactive. Contact with water can generate heat (see Section 10). Stay upwind and away from spill/release. Notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8).

Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal. Do not add water to spilled material. Spilled material may be absorbed into an appropriate absorbent material.

Notify fire authorities and appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended. Cleanup under expert supervision is advised. If spill/release in excess of EPA reportable quantity (see Section 14) is made into the environment, immediately notify the National Response Center (phone number 800-424-8802).

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7. HANDLING AND STORAGE

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HANDLING: Protect against moisture including moisture from air or vapor space. Avoid contact with water. In a tank or other closed container, the vapor space above this material may contain sulfur dioxide (SO₂) in levels above the established exposure limits. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Sections 2 and 8).

Do not wear contaminated clothing or shoes. Use good personal hygiene practices.

Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1, and other references pertaining to cleaning, repairing, welding, or other contemplated operations.

STORAGE: Use and store this material in cool, dry, well ventilated areas away from heat and all sources of ignition. Keep away from any incompatible material (see Section 10).

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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ENGINEERING CONTROLS: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see Section 2), additional ventilation or exhaust systems may be required.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

RESPIRATORY: A NIOSH certified full face air purifying respirator with a Type 95 (R or P) particulate filter in combination with an acid gas cartridge may be used under conditions where airborne concentrations are expected to exceed exposure limits (see Section 2).

Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a positive pressure air supplied respirator if there is potential for uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN: The use of gloves impervious to the specific material handled is advised to prevent skin contact, possible irritation, absorption, and skin damage (see glove manufacturer literature for information on permeability).

Depending on conditions of use, apron and/or arm covers may be necessary.

EYE/FACE: The use of a face shield and/or chemical goggles to safeguard against potential eye contact, irritation, or injury is recommended.

OTHER PROTECTIVE EQUIPMENT: Eye wash and quick-drench shower facilities should be available in the work area. Thoroughly clean shoes and wash contaminated clothing before reuse. It is recommended that impervious clothing be worn when skin contact is possible.

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9. PHYSICAL AND CHEMICAL PROPERTIES

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SEE DATA PAGES FOR ADDITIONAL INFORMATION.

NOTE: Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm).

FLASH POINT: Material will not burn readily, but during storage and transport may contain a small amount of hydrocarbon vapors with a flash point of less than 100°F.

FLAMMABLE/EXPLOSIVE LIMITS (%): Aqueous solution, may release flammable gases

AUTOIGNITION TEMPERATURE: No data

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10. STABILITY AND REACTIVITY

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CHEMICAL STABILITY: Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. Corrosive to metal. Can react with common metals generating hydrogen gas. Water reactive. Contact with water can generate heat.

CONDITIONS TO AVOID: Heat will increase overall reactivity.

INCOMPATIBLE MATERIALS: Highly reactive and capable of igniting finely divided combustible material on contact. Extremely hazardous in contact with many materials, particularly carbides, chlorates, fluminates, nitrates, picrates, powdered metals and other combustible materials. Contact with hypochlorites (e.g., chlorine bleach), sulfides or cyanides will produce toxic gases. Water reactive. Reacts violently with water, alkaline materials or organic materials with evolution of heat. Corrosive to metal. Attacks many metals, releasing hydrogen gas (see Section 5).

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion can yield sulfur dioxide and other sulfur oxides. Decomposes to water and sulfur trioxide above 644°F.

HAZARDOUS POLYMERIZATION: Hydrocarbon contaminants in the spent acid may polymerize.

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11. TOXICOLOGICAL INFORMATION

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SULFURIC ACID (CAS# 7664-93-9):

CARCINOGENICITY: The International Agency for Research on Cancer (IARC) classified "strong inorganic acid mists containing sulfuric acid" as a Category I carcinogen (known human carcinogen) based upon epidemiology studies demonstrating excess pharyngeal and lung cancer in chronically exposed workers.

PETROLEUM HYDROCARBONS (UNKNOWN COMPOSITION) (CAS# NONE):

CARCINOGENICITY: Certain petroleum hydrocarbon mixtures such as crude oil, untreated vacuum distillates, catalytically cracked distillates, and untreated lub stocks have been shown to cause skin cancer in laboratory animals.

TARGET ORGAN(S): As a general rule, petroleum hydrocarbons are not notable for their ability to cause specific organ damage. However, certain distillates from catalytic and thermocracked processes have caused liver and kidney damage, developmental toxicity and/or male reproductive toxicity in laboratory animals.

SULFUR DIOXIDE (CAS# 7446-09-5):

CARCINOGENICITY: There is inadequate evidence for the carcinogenicity of sulfur dioxide in humans, and limited evidence in laboratory animals,

according to the International Agency for Research on Cancer (IARC). Sulfur dioxide is not listed as a carcinogen by NTP or OSHA.

TARGET ORGAN(S): Acute exposure to high concentrations of sulfur dioxide have been associated with reactive airway disease, obstructive or restrictive lung disease, and chronic bronchitis. Chronic exposure can lead to chronic respiratory disease.

DEVELOPMENTAL: Inhalation exposure of sulfur dioxide to pregnant laboratory animals produced limited evidence of developmental toxicity. The effects seen include decreased fetal weight and delayed fetal ossification. The results are classified as limited since effects are noted only in the presence of maternal toxicity.

MUTAGENICITY: Sulfur dioxide has produced mutations, DNA damage, and chromosome aberrations in animal and laboratory studies. Epidemiology studies have reported both negative findings as well as some evidence of genotoxic effects.

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12. DISPOSAL CONSIDERATIONS

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This material, if discarded as produced, would be a RCRA "characteristic" hazardous waste due to the characteristic(s) of corrosivity (D002) and reactivity (D003). If the material is spilled to soil or water, characteristic testing of the contaminated materials is recommended. Further, this material, once it becomes a waste, is subject to the land disposal restrictions in 40 CFR 268.40 and may require treatment prior to disposal to meet specific standards. Consult state and local regulations to determine whether they are more stringent than the federal requirements.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

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13. TRANSPORT INFORMATION

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DOT PROPER SHIPPING NAME/TECHNICAL NAME: Sulfuric Acid, Spent

HAZARD CLASS OR DIVISION: 8

ID #: UN1832

PACKING GROUP: II

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14. REGULATORY INFORMATION

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THIS MATERIAL CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE
REPORTING REQUIREMENTS OF SARA 313 AND 40 CFR 372:

COMPONENT	CAS NUMBER	WEIGHT %
Sulfuric Acid	7664-93-9	84-90

WARNING: This material contains the following chemicals which are
known to the State of California to cause cancer, birth defects or other
reproductive harm, and are subject to the requirements of CALIFORNIA PROPOSITION 65
(CA Health & Safety Code Section 25249.5):

None Known

This material has not been identified as a carcinogen by NTP, IARC, or
OSHA. See Section 11 for carcinogenicity information of individual components, if
any.

EPA (CERCLA) REPORTABLE QUANTITY:

RQ #1 Sulfuric Acid: 1000 lb equal to 1111 lb, (76 gal), of this
material.

RQ #2 Sulfur Dioxide: 500 lb equal to 50000 lb, (3429 gal), of this
material.

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15. DOCUMENTARY INFORMATION

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ISSUE DATE: 10/04/2004
PREVIOUS ISSUE DATE: 10/04/2004
PRODUCT CODE: None
PREVIOUS PRODUCT CODE: None

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16. DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

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The Premcor Refining Group Inc. (Premcor) believes the information presented in this Material Safety Data Sheet is accurate as of the date this Material Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT OR THE HAZARDS RELATED TO ITS USE. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited.

ISSUE DATE: 10/04/2004

STATUS: Final

REVISED SECTIONS:

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HAZMIN Status - Current

Date Imported: 10-04-2004 Date moved to Current Status: Oct 4
2004 1:58PM

10/14/2004 5:25:55 PM

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APPENDIX L

Motiva Material Safety Data Sheet (MSDS) for Spent Acid

MATERIAL SAFETY DATA SHEET

Review Date: 08/19/2005

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: Spent Alky Sulfuric Acid

MSDS NUMBER: 830294E - 11

PRODUCT CODE(S): 05091

MANUFACTURER

Shell Oil Products US
P.O. Box 4453
Houston, TX. 77210-4453

TELEPHONE NUMBERS

Spill Information: (877) 242-7400
Health Information: (877) 504-9351
MSDS Assistance Number: (877) 276-7285

SECTION 2

PRODUCT/INGREDIENTS

INGREDIENTS

CAS#

CONCENTRATION

Spent Sulfuric Acid	Mixture	100	%weight
Sulfuric acid	7664-93-9	88 - 95	%weight
Soluble Hydrocarbons Conjunct Polymer	Mixture	5 - 10	%weight
Water	7732-18-5	0 - 5	%weight
Sulfur Dioxide	7446-09-5	0 - 0.3	%weight
Insoluble Hydrocarbons, C4-C8	68956-52-5	<1	%weight

SECTION 3

HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance & Odor: Dark brown to black viscous liquid Slight Hydrocarbon and/or Sulfur Dioxide (SO₂) odor.

Health Hazards: Causes severe skin burns. Causes severe eye burns. Highly toxic and may be fatal if inhaled. Causes digestive tract burns.

NFPA Rating (Health, Fire, Reactivity): 4, 1, 2

Hazard Rating: Least - 0 Slight - 1 Moderate - 2 High - 3 Extreme - 4

Inhalation:

Highly toxic and may be fatal if inhaled.

Eye Irritation:

May be corrosive (causing chemical burns) and may result in permanent eye damage or blindness.

Skin Contact:

May be corrosive (causing chemical burns) which may result in permanent skin damage. Repeated contact with skin may cause persistent irritation or dermatitis. May cause slight irritation of the skin. If irritation occurs, a temporary burning sensation and minor redness and/or swelling may result.

Ingestion:

Severely irritating to the mouth, throat and digestive system and may cause chemical burns which could result in permanent damage to the areas contacted.

Other Health Effects:

Carcinogenic in animal tests. Known human carcinogen. See Section 11.

Primary Target Organs:

The following organs and/or organ systems may be damaged by overexposure to this material and/or its components:
Respiratory System, Skin

Signs and Symptoms:

Kidney damage may be indicated by changes in urine output or appearance, pain upon urination or in the lower back or general edema (swelling from fluid retention). Liver damage may be indicated by loss of appetite, jaundice (yellowish skin and eye color), fatigue and sometimes pain and swelling in the upper right abdomen.

Aggravated Medical Conditions:

Pre-existing eye, skin and respiratory disorders may be aggravated by exposure to this product.

For additional health information, refer to section 11.

SECTION 4	FIRST AID MEASURES
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Inhalation:

DO NOT attempt to rescue victim unless proper respiratory protection is worn. Move victim to fresh air and provide oxygen if breathing is difficult. Get medical attention. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

Skin:

Immediately remove contaminated clothing, flush skin with large amounts of water for at least 15 minutes, by the clock, or longer depending on the concentration amount and duration of exposure. Flush exposed area with water and follow by washing with soap if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.

Eye:

Immediately flush eyes with large amounts of water for at least 15 minutes (30 minutes if alkaline or basic material), by the clock, while holding eyelids open. Transport to nearest medical facility for additional treatment.

Ingestion:

DO NOT INDUCE VOMITING. DO NOT take internally. If victim is alert, rinse mouth and drink 1/2 to 1 glass of water to help dilute the material and call a doctor or poison control center. DO NOT GIVE LIQUIDS TO A DROWSY, CONVULSING OR UNCONSCIOUS PERSON. Keep the victim calm. If the victim is coughing, choking, bleeding from the mouth, is short of breath or has difficulty breathing or swallowing, transport to the nearest medical facility for additional treatment.

SECTION 5	FIRE FIGHTING MEASURES
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Flash Point [Method]: >200 °F/>93.33 °C [Tagliabue Open Cup]

Extinguishing Media:

Use dry chemical, carbon dioxide (CO₂), or a dry, noncombustible material such as, dry sand or earth, to extinguish flames. Use water fog or 'alcohol foam' with caution. Do not use a direct stream of water. Acids react violently with water. Contact with water can generate heat.

Fire Fighting Instructions:

Material may ignite when preheated. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, NIOSH approved, self-contained breathing apparatus. Hazardous combustion/decomposition products may be released by this material when exposed to heat or fire.

Unusual Fire Hazards:

This material product may contain small percentages or entrained insoluble hydrocarbons that can float to the surface of the material, resulting in a free hydrocarbon layer of liquid or vapors that are flammable. Small percentages of insoluble hydrocarbons present the potential for creating a flammable or explosive vapor space in the storage/transport container if sufficient oxygen is present. Prior to performing grinding, cutting, welding or any other spark-producing work, in, on or around the storage/transport container, test the flammability of the atmosphere within the container's headspace. One way to prevent ignition of the hydrocarbon vapor, if present, is to displace the oxygen in the vapor space of the storage/transport container with an inert gas.

SECTION 6**ACCIDENTAL RELEASE MEASURES****Protective Measures:**

DANGER! CORROSIVE. HIGHLY TOXIC. Prevent all bodily contact with spilled material.

Wear appropriate personal protective equipment when cleaning up spills. Refer to Section 8. Full protective clothing and self-contained breathing apparatus.

Spill Management:

Shut off source of leak if safe to do so. This material reacts with water to produce a violent chemical reaction. This material may contain small percentages of entrained insoluble hydrocarbons that can float to the surface of the material, resulting on a free hydrocarbon layer of liquid or vapors that are flammable.

Keep liquid and vapor away from heat, sparks and flames. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors have dissipated. Dike and contain spill. Neutralize contaminated area as appropriate for acid or base spill. Prevent spilled material from entering sewers, storm drains, waterways and unauthorized drainage systems.

Reporting:

U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity to the National Response Center at (800)424-8802.

SECTION 7**HANDLING AND STORAGE****Precautionary Measures:**

Do not breathe material. Keep container closed. Use only with adequate ventilation. Do not get in eyes, on skin or on clothing. Do not take internally. Do not taste or swallow. Wash thoroughly after handling.

Handling:

Liquid will not burn readily, but flammable vapors may be present.

Storage:

Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures. Contact with some metals can generate hydrogen. Material is corrosive to metal.

Keep liquid and vapor away from heat, sparks and flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors have dissipated. Use explosion-proof ventilation indoors and in laboratory settings.

This material product may contain small percentages or entrained insoluble hydrocarbons that can float to the surface of the material, resulting in a free hydrocarbon layer of liquid or vapors that are flammable. Small percentages of insoluble hydrocarbons present the potential for creating a flammable or explosive vapor space in the storage/transport container if sufficient oxygen is present. Prior to performing grinding, cutting, welding or any other spark-producing work, in, on or around the storage/transport container, test the flammability of the atmosphere within the container's headspace. One way to prevent ignition of the hydrocarbon vapor, if present, is to displace the oxygen in the vapor space of the storage/transport container with an inert gas.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical	Limit	TWA	STEL	Ceiling	Notation
Sulfur Dioxide	ACGIH TLV	2 ppmv	5 ppmv		
Sulfur Dioxide	OSHA PEL - 1989(revoked)	2 ppmv	5 ppmv		
Sulfuric acid	ACGIH TLV	1 mg/m3	3 mg/m3		
Sulfuric acid	OSHA PEL	1 mg/m3			

Exposure Controls

Adequate explosion-proof ventilation indoors and in laboratory settings to control airborne concentrations below the exposure guidelines/limits. This material may contain small percentages or entrained insoluble hydrocarbons that can float to the surface of the material, resulting in a free hydrocarbon layer of liquid or vapors that are flammable. Over time a small amount of the sulfuric acid present in spent sulfuric acid may degrade or decompose to form sulfur dioxide, which, if present, can accumulate in the storage/transport container and present a potential personnel exposure to sulfur dioxide. Hazardous combustion/decomposition products may be released by this material when exposed to heat or fire.

Personal Protection

Personal protective equipment (PPE) selections vary based on potential exposure conditions such as handling practices, concentration and ventilation. Information on the selection of eye, skin and respiratory protection for use with this material is provided below.

Eye Protection:

Chemical Goggles and Face Shield

Skin Protection:

Use protective clothing which is chemically resistant to this material. Selection of protective clothing depends on potential exposure conditions and may include gloves, boots, suits and other items. The selection(s) should take into account such factors as job task, type of exposure and durability requirements.

Published literature, test data and/or glove and clothing manufacturers indicate the best protection is provided by:

Butyl, or Nitrile Rubber

Respiratory Protection:

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Types of respirator(s) to be considered in the selection process include:

Full-Face Air-Purifying Respirator for Acid Gases and Organic Vapors. Full face air supplied respirator if oxygen level is reduced below 19.5 %.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odor: Dark brown to black viscous liquid Slight Hydrocarbon and/or Sulfur Dioxide (SO₂) odor.

Substance Chemical Family: Process Stream

Flash Point	> 200 °F [Tagliabue Open Cup]	Specific Gravity	1.6 - 1.8 Approximate
Stability	Stable	Vapor Density	> 1

SECTION 10 REACTIVITY AND STABILITY

Stability:

Material is stable under normal ambient temperature and pressure conditions. Hazardous polymerization (exothermic) of hydrocarbons contained in this product can occur, particularly if the sulfuric acid concentration drops to approximately 85% or below.

Conditions to Avoid:

Avoid heat and open flames. Avoid high temperatures.

Materials to Avoid:

Avoid contact with strong oxidizing agents. Prevent contact with water, including moist air. Reacts violently with water, alkaline materials or organic materials with evolution of heat. Contact with hypochlorites, such as chlorine bleach, sulfides or cyanides can produce sulfur dioxide.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity

TEST	Result	OSHA Classification	Material Tested
Eye Irritation	> 80 [Rabbit]	Corrosive	Based on components(s)
Inhalation LC50	20 mg/m3(Guinea Pig)	Toxic	Based on components(s)
Oral LD50	2140 mg/kg(Rat)	Non-Toxic	Based on components(s)
Skin Irritation	8 [Rabbit]	Corrosive	Based on components(s)

Carcinogenicity Classification

Chemical Name	NTP	IARC	ACGIH	OSHA
Spent Sulfuric Acid	Yes	Yes	No	No
Sulfur Dioxide	No	Not Classifiable (3)	A4	No
Sulfuric acid	No	No	A2	No

Carcinogenicity	Long-term occupational exposure to mists of sulfuric acid has been classified by IARC as a known cause of lung and respiratory tract cancers in humans. Long-term skin painting of kerosene and related materials such as Alky hydrocarbons caused malignant skin tumors with long latency periods (appearing late in the animals lives) in mice. Mechanistic studies suggest that these tumors are a secondary effect related to prolonged skin injury and irritation.
Kidney	Nephropathy (kidney damage) caused by inhalation of a material similar to Alky hydrocarbons appears to be male rat specific (accumulation of alpha-2-u globulin) and is probably not relevant to humans.
Liver	Tissue damage was observed in some organs of rabbits following repeated skin exposure to a material similar to Alky hydrocarbons. Microscopic changes seen in the liver (mottled necrosis and centrilobular degeneration), kidney and bladder (hyperplasia) were considered to be secondary to (caused by) the severe skin irritancy.
Respiratory System	Repeated or prolonged inhalation of sulfuric acid mists can cause inflammation of the upper respiratory tract possibly leading to chronic bronchitis. Severe exposures may cause a chemical pneumonitis (inflammation of the lung).
Skin	<p>Concentrated sulfuric acid will rapidly cause severe corrosion (chemical burns) of the skin. Any deaths associated with skin exposure are due to these severe burns rather than chemical toxicity. Prolonged or repeated exposure to more dilute solutions may eventually result in dermatitis (skin inflammation).</p> <p>Long-term skin exposure to a material similar to Alky hydrocarbons resulted in significantly lower body weights (male and female) in experimental animals and two treatment-related deaths at 2000 mg/kg. Repeated high level dermal exposure of the skin results in severe irritation and histopathologic changes including inflammatory cell infiltration, acanthosis, fibrosis, hyperkeratosis and scab formation.</p>

SECTION 12

ECOLOGICAL INFORMATION

Environmental Impact Summary:

There is no ecological data available for this product.

Environmental Toxicity

Sulfuric Acid has been shown to be toxic to fresh water organisms. Discharges of Sulfuric Acid products to aquatic ecosystems should be avoided.

SECTION 13

DISPOSAL CONSIDERATIONS

RCRA Information:

Under RCRA, it is the responsibility of the user of the material to determine, at the time of the disposal, whether the material meets RCRA criteria for hazardous waste. This is because material uses, transformations, mixtures, processes, etc. may affect the classification. Refer to the latest EPA, state and local regulations regarding proper disposal.

SECTION 14 TRANSPORT INFORMATION

US Department of Transportation Classification

Proper Shipping Name: Sulfuric Acid, Spent
Identification Number: UN1832
Hazard Class/Division: 8 (Corrosive Materials)
Packing Group: II

Hazardous Substance/Material RQ: Sulfuric acid / 1000 lbs

Marine Pollutant % of Total: 100 %weight

Marine Pollutant: For DOT exceptions that apply to this material, see 49 CFR 172.203(L)(3) and 171.4(c).

Emergency Response Guide #137

International Air Transport Association

Hazard Class/Division: 8 (Corrosive Materials)
Identification Number: UN1832
Packing Group: II
Proper Shipping Name: Sulfuric Acid, Spent

International Maritime Organization Classification

Hazard Class/Division: 8 (Corrosive Materials)
Identification Number: UN1832
Packing Group: II
Proper Shipping Name: Sulfuric Acid, Spent

SECTION 15 REGULATORY INFORMATION

Federal Regulatory Status

OSHA Classification:

Product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Comprehensive Environmental Release, Compensation & Liability Act (CERCLA):

Sulfuric Acid	RQ 1000 lbs	Reportable Spill => 1000 lbs or 74.97 gal
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Ozone Depleting Substances (40 CFR 82 Clean Air Act):

This material does not contain nor was it directly manufactured with any Class I or Class II ozone depleting substances.

Superfund Amendment & Reauthorization Act (SARA) Title III:

SARA Extremely Hazardous Substances (302/304):

Sulfuric Acid	RQ 1000 lbs	Reportable Spill => 1000 lbs or 74.97 gal
Sulfur Dioxide	TPQ 500 lbs	Reportable Spill => 500 lbs or 37.48 gal

SARA Hazard Categories (311/312):

Immediate Health	Delayed Health	Fire	Pressure	Reactivity
YES	NO	NO	NO	YES

SARA Toxic Release Inventory (TRI) (313):

There are no components in this product on the SARA 313 list.

Toxic Substances Control Act (TSCA) Status:

This material is listed on the EPA/TSCA Inventory of Chemical Substances.

Other Chemical Inventories:

Australian AICS, Canadian DSL, Chinese Inventory, European EINECS, Japan ENCS, Korean Inventory, Philippines PICCS,

State Regulation

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

New Jersey Right-To-Know Chemical List:

Sulfur Dioxide	0 - 0.3 %weight	Environmental Hazard
Sulfuric acid	87 - 95 %weight	Environmental Hazard

Pennsylvania Right-To-Know Chemical List:

Sulfur Dioxide	0 - 0.3 %weight	Environmental Hazard
Sulfuric acid	87 - 95 %weight	Environmental Hazard

SECTION 16**OTHER INFORMATION**

HMIS Rating (Health, Fire, Reactivity): 4, 1, 2

Revision#: 11

Review Date: 08/19/2005

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Revisions since last change (discussion): This Material Safety Data Sheet (MSDS) has been revised to fully comply with the guidance contained in the ANSI MSDS standard (ANSI Z400.1-1998). We encourage you to take the opportunity to read the MSDS and review the information contained therein.

SECTION 17**LABEL INFORMATION**

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR OTHER RELATED REGULATORY REQUIREMENTS.

PRODUCT CODE(S): 05091

Spent Alky Sulfuric Acid**DANGER!**

MAYBE HARMFUL OR FATAL IF SWALLOWED. CORROSIVE TO EYES AND SKIN. CAUSES DIGESTIVE TRACT BURNS. HIGHLY TOXIC AND MAY BE FATAL IF INHALED. The following organs and/or organ systems may be damaged by overexposure to this material and/or its components.

MATERIAL AND/OR COMPONENTS THAT HAVE BEEN SHOWN TO CAUSE CANCER INCLUDE: Spent Sulfuric Acid, Sulfuric acid

MAY CAUSE DAMAGE TO: Respiratory System, Skin

Precautionary Measures:

Avoid heat and open flames. Prevent contact with water including moist air. Use only with adequate ventilation. Keep container closed when not in use. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling.

FIRST AID

Inhalation: Move victim to fresh air and provide oxygen if breathing is difficult. Get medical attention. DO NOT attempt to rescue victim unless proper respiratory protection is worn. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

Skin Contact: Immediately remove contaminated clothing, flush skin with large amounts of water for at least 15 minutes, by the clock, or longer depending on the concentration amount and duration of exposure. Flush exposed area with water and follow by washing with soap if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.

Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes (30 minutes if alkaline or basic material), by the clock, while holding eyelids open. Transport to nearest medical facility for additional treatment.

Ingestion: DO NOT INDUCE VOMITING. DO NOT take internally. If swallowed, IMMEDIATELY contact a poison control center, emergency treatment center, or physician. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. If victim is alert, rinse mouth and drink 1/2 to 1 glass of water to help dilute the material and call a doctor or poison control center. DO NOT GIVE LIQUIDS TO A DROWSY, CONVULSING OR UNCONSCIOUS PERSON. Keep the victim calm. If the victim is coughing, choking, bleeding from the mouth, is short of breath or has difficulty breathing or swallowing, transport to the nearest medical facility for additional treatment.

FIRE

In case of fire, Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use a direct stream of water.

SPILL OR LEAK

Dike and contain spill. Shut off source of leak if safe to do so. Neutralize contaminated area as appropriate for acid or base spill.

FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

CONTAINS: Sulfuric acid, 7664-93-9; Soluble Hydrocarbons Conjoint Polymer, Mixture; Water, 7732-18-5; Sulfur Dioxide, 7446-09-5; Insoluble Hydrocarbons, C4-C8, 68956-52-5

NFPA Rating (Health, Fire, Reactivity): 4, 1, 2

HMIS Rating (Health, Fire, Reactivity): 4, 1, 2

TRANSPORTATION

US Department of Transportation Classification

Proper Shipping Name: Sulfuric Acid, Spent
Identification Number: UN1832
Hazard Class/Division: 8 (Corrosive Materials)
Packing Group: II

Hazardous Substance/Material RQ: Sulfuric acid / 1000 lbs

Marine Pollutant % of Total: 100 %weight

Marine Pollutant: For DOT exceptions that apply to this material, see 49 CFR 172.203(L)(3) and 171.4(c).

Emergency Response Guide #137

Name and Address

Shell Oil Products US
P.O. Box 4453
Houston, TX 77210-4453

ADMINISTRATIVE INFORMATION

MANUFACTURER ADDRESS: Shell Oil Products US, P.O. Box 4453, Houston, TX. 77210-4453

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